

#### SITE INVESTIGATION REPORT

Riverview Industrial Center Former Petroleum Distribution Terminal 5335 River Road Tonawanda, New York NYSDEC Spill #915225

#### PREPARED FOR:

#### **NYSDEC**

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#### **EXECUTIVE SUMMARY**

OP-TECH Environmental Services (OP-TECH) completed a Site Investigation at the Riverview Industrial Center located at 5335 River Road in Tonawanda, New York. This work was completed for Region 9 of the New York State Department of Environmental Conservation (NYSDEC). The Riverview Industrial Center is a former oil storage facility located on a 25.2 acre parcel of land off River Road. Property uses in the vicinity are typically commercial and recreational. The parcel is long and narrow, oriented northwest-southeast with wider portions of the parcel located on the northern and southern ends of the parcel.

The Riverview Industrial Center is an abandoned bulk oil storage facility which has remained vacant and underutilized since the early 1990's. Records indicate that the site was utilized for oil storage since 1937 by various owners. Only the portion of the property abutting River Road was developed. The developed portion of the site contained a two story 10,460 square foot vacant building, truck loading racks along River Road and one 5,000,000 gallon aboveground oil storage tank. Historical records indicate that there were 10 additional above ground tanks (ASTs) at one time with an estimated combined storage capacity of 11,800,000 gallons which were removed around 1994. Earthen berm areas were utilized onsite as containment structures for the above ground storage tanks. Most of this infrastructure has been removed by successive demolition events; however significant belowground infrastructure reportedly exists on site including an oil/water separator, underground piping and underground storage tanks (USTs).

The overall objective of the Site Investigation was to collect enough surface and subsurface information to evaluate the presence/absence of environmental contamination at the Riverview Industrial Center that could influence future development of the property. The following investigative activities were completed to evaluate site conditions and meet the objectives of the Work Plan:

- Preparation of a detailed property and topographic survey;
- Completion of soil borings to a depth of approximately eight feet using direct push technology;
- Completion of test pit excavations to a depth of approximately 10 feet in order to assess and quantify subsurface soil quality;
- Installation of new groundwater monitoring wells using a geotechnical drill rig equipped with hollow stem augers (HSAs);
- Reinstallation of one existing site well;
- Completion of stratigraphic logs and well construction diagrams for soil borings, test pits and installed groundwater monitoring wells;
- Collection of surface soil samples at the direction of the NYSDEC;
- Collection of surface water samples at the direction of the NYSDEC;
- Collection of groundwater samples from existing and new groundwater monitoring wells;
- Collect water, sediment and non-aqueous phase liquid (NAPL) samples from one storm sewer manhole at the direction of the NYSDEC:
- Collect water sediment/sludge and NAPL (if present) from each oil/water separator; and
- Collect water, sludge and product (if present) from each underground storage tank.

This field work was completed with geologists, hydrogeologist, technicians, laborers, drillers, and driller's assistants supplied by OP-TECH and CME Associates.

Twenty-two surface soil samples, four surface water and five sediment samples were collected at locations specified by the NYSDEC.

Forty-six direct push boring locations were advanced to a depth of approximately eight feet below ground surface across the site resulting in the collection of 25 soil samples for chemical analysis. Twenty-one test pits were excavated at locations primarily in the north half of the property. Nine soil samples were collected from the test pits for chemical analysis.

Four new groundwater monitoring wells were also installed at the site resulting in four soil samples for chemical analysis. In addition, groundwater samples were subsequently collected for analysis from the three existing site wells, the four new wells and one replacement well.

Water, sediment and NAPL samples were also collected from the oil/water separator, site sewer, the catch basin manhole, the mechanics pit, and five storage tanks.

Once the analytical results were received from the analytical laboratory, a data usability summary report (DUSR) was completed on the data to review data deficiencies, analytical protocol deviations and general quality control with respect to the data package.

Surface soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals. Review of the results from 22 surface soil samples indicates that VOCs were detected at low levels in only three of 22 samples; SVOCs were detected in most of the surface soils samples up to 73,760 micrograms per kilogram at SS-3. Pesticide concentrations in site surface soils ranged from non-detect at 12 of 22 locations, up to 230 micrograms per kilogram at SS-1. PCBs were detected in three of 22 samples, while metals detected in the surface soil samples were generally similar to eastern USA background concentrations.

Surface water samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. Review of the results from four samples indicates that VOCs were detected at three sample locations; no SVOCs were detected; pesticides were detected in three of the four surface water samples; and no PCBs were detected.

Soil samples from the soil borings, were analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. Review of the results from 24 samples showed VOCs were detected in 17 of 24 samples; SVOCs were detected in 18 samples; pesticides were detected at nine of 24 samples; PCBs were detected in 2 of 24 samples; and metals were detected in all soils samples at concentrations which are similar to eastern USA background concentrations.

Soil samples from the test pits were analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. Review of the results from eight samples indicates the presence of VOCs from low to high concentrations in all samples; SVOCs detections in six of eight test pit samples; pesticide were detected in five test pit samples; PCB detections in five samples; and metals were detected in all samples at concentrations which are similar to eastern USA background concentrations.

Soil samples from the monitoring wells were analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. Review of the results from four samples indicates that VOCs were detected in only one of the four soil samples analyzed; SVOCs ranged from non-detect at MW-007, to 565 micrograms per kilogram at MW-005. Pesticides and PCBs were not detected in soil samples from the newly installed monitoring wells; and metals were detected at concentrations which are similar to eastern USA background concentrations.

Groundwater samples from the existing and newly installed monitoring wells were analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. VOCs were not detected in four of the eight wells. VOC detections in the other four groundwater samples ranged from 0.53 to 7.13 micrograms per liter. SVOCs were detected in only one groundwater sample (MW-008) at a low concentration (3.1 micrograms per liter). Pesticides were detected in five of the eight groundwater samples at very low concentrations (0.020 to 0.135 micrograms per liter), while PCBs

were not detected in any of the eight groundwater samples. Six metals exceeded were detected at concentrations exceeding TOG 1.1.1 guidance for groundwater.

Non-aqueous phase liquid (NAPL) waste That was sampled had high levels of VOCs and SVOCs; no pesticides or PCBs, and low concentrations of a number of metals. The NAPL waste samples were identified as #2 and #4 fuel oil.

Aqueous samples from the oil/water separator, the sewer line and the mechanics pit showed no VOCs were present. SVOCs were detected in aqueous samples from manhole -2 and the mechanics pit. Low concentrations of pesticides were detected in the oil/water separator and manhole -1; and PCBs were also detected in the manhole -1 aqueous sample. Various metals were detected in all four samples from this group.

General site sediment samples and sediment from the catch basin sample were analyzed for VOCs, SVOCs, pesticides, PCBs and metals. The results indicate varying concentrations of VOCs, SVOCs, pesticides, and PCBs with metal generally similar to eastern USA background concentrations.

In general, the northern one-quarter of the site shows impacts from historic operations, whereas results from the chemical analysis of samples collected from the "neck" and southern block of the site shows few environmental impacts.

#### 1.0 INTRODUCTION

OP-TECH was contracted by Region 9 of the NYSDEC to complete a Site Investigation at the Riverview Industrial Center located at 5335 River Road, in the Town of Tonawanda, Erie County, New York. A Work Plan dated March, 2009 was provided by NYSDEC for OP-TECH to implement. A site walk through was completed in April, 2009; investigative field work started on May 4, 2009, and was completed on August 26, 2009. This report provides a summary of the field methods, the sample analytical methods, and the sample analytical results collected as part of this investigation. Per the NYSDEC's request, there are no conclusions or recommendations with this report, only presentation of the field methods and the analytical data.

#### 2.0 SITE DESCRIPTION

The Riverview Industrial Center is a former oil storage facility located on a 25.2 acre parcel off River Road. The site is bordered on the north by River Road and the Niagara River. To the south are vacant wooded land and the Enbridge Energy Tonawanda Station; to the east is an abandoned steel recycling facility; and to the west is Riverview Commerce Park. Property uses in the vicinity are typically commercial and recreational. (Figure 1).

The parcel is long and narrow, oriented northwest-southeast with wider portions of the parcel on the north and south ends that are connected by "narrow neck". The northern portion of the parcel is approximately 300 feet wide by approximately 1,000 feet in length; the central neck is approximately 150 feet wide and 3150 feet long; while the southern portion of the parcel is approximately 450 feet long and 600 feet wide.

#### 3.0 SITE HISTORY

The Riverview Industrial Center is an abandoned oil storage facility which has remained vacant and underutilized since the early 1990's. Records indicate that the site was utilized for oil storage since 1937 by various owners. The parcel approximates an elongated "C" shape with only the portion abutting River Road having been developed. The developed portion of the site contains a two story 10,460 square foot vacant building, truck loading racks along River Road and one 5,000,000 gallon aboveground oil storage tank. Historical records indicate that there were 10 additional above ground tanks (ASTs) at one time with an estimated combined storage capacity of 11,800,000 gallons which were removed around 1994. Earthen berm areas were utilized onsite as containment structures for the above ground storage tanks.

Significant suspected belowground infrastructure exists on site including an oil/water separator and piping in the loading rack area along River Road, an estimated 10,000 gallon heating oil tank adjacent to the building, 2 - 3,000 gallon gasoline/diesel tanks in the north west area of the site, an oil/water separator and 4,000 gallon holding tank for the site sewer located behind the tank farm area near the creek. In addition a site drainage system reportedly runs down the center of the site and numerous underground piping systems may also exist.

#### 4.0 SITE INVESTIGATION OBJECTIVES

The overall objective of the Site Investigation was to collect enough surface and subsurface information to evaluate the presence/absence of environmental contamination at the Riverview Industrial Center that could influence future development of the property. Specific objectives of the investigation included:

- Site evaluation to determine if hazardous substances are present;
- Determine the nature and extent of contamination at the site; and

• Evaluate groundwater quality and flow patterns.

These objectives were accomplished through completion of a soil boring and text pit program, collection of surface soil samples, installation of groundwater monitoring wells, collection and analysis of surface soil, subsurface soil, waste, sump water, surface water, groundwater, and sludge samples.

#### 5.0 SCOPE OF WORK

The following investigative activities were completed to evaluate site conditions and meet the objectives of the Work Plan:

- Preparation of a detailed property and topographic survey;
- Completion of soil borings to a depth of approximately eight feet using direct push technology;
- Completion of test pit excavations to a depth of approximately 10 feet in order to assess and quantify subsurface soil quality;
- Installation of new groundwater monitoring wells using a geotechnical drill rig equipped with hollow stem augers (HSAs);
- Reinstallation of one existing site well;
- Completion of stratigraphic logs and well construction diagrams for soil borings, test pits and installed groundwater monitoring wells;
- Collection of surface soil samples at the direction of the NYSDEC;
- Collection of surface water samples at the direction of the NYSDEC;
- Collection of groundwater samples from existing and new groundwater monitoring wells;
- Collect water, sediment and NAPL samples from one storm sewer manhole at the direction of the NYSDEC:
- Collect water sediment/sludge and NAPL (if present) from each oil/water separator; and
- Collect water, sludge and product (if present) from each underground storage tank.

This field work was completed with geologists, hydrogeologist, technicians and laborers drillers, and driller's assistants supplied by OP-TECH and CME Associates. The following sections of this report provide a detailed description of the activities that were required to complete this work.

#### 5.1 Detailed Property Survey and Mapping.

William Schutt and Associates, a New York State Licensed Surveyor was retained to construct a base map with all site structures (Figure 2 and 3). Included on this map are:

- Horizontal locations and ground surface elevations of all surface soil location, soil borings, and test pit locations that were completed during the Site Investigation; and
- Horizontal locations and vertical elevations of all monitoring wells (new and existing), including ground surface elevation and the elevation of the inner PVC riser for each well.

In addition, NYSDEC requested a topographic map to be developed for the front or northern part of the property. This map is attached as Figure 4.

Vertical control was established to the nearest +/- 0.1 foot for all ground surface elevations, as well as for well riser elevations relative to the North American Vertical Datum of 1988 (NAVD 88), with reference made to an existing monument in the vicinity of the site. Horizontal coordinates are in the State Plane East Zone (feet), North American Datum (NAD) of 1983 to an accuracy of +/- 0.5 foot.

#### 5.2 Surface Soil and Surface Water Samples

On May 15 through May 29, 2009, twenty-two surface soil, four surface water and five sediment samples were collected at locations specified by the NYSDEC. Surface soil locations are denoted in the text, on report tables and on report figures as "SS" samples. Surface soils were collected as grab samples from ground surface to a depth of approximately two inches directly into clean glassware supplied by the contract laboratory.

Surface water samples were also collected at locations specified by the NYSDEC and are denoted in the text, on report tables, and on report figures as "SW" samples.

Sediment samples were also collected at locations specified by the NYSDEC and are denoted in the text, on report tables, and on report figures as "SED" samples.

Once collected, these samples were placed in clean glassware provided by the contract laboratory, labeled with a unique sample identification code (i.e., SS-X. SW-X or SED-X), packed in a cooler with ice, and shipped under chain-of-custody control to the contract laboratory. These samples were analyzed for Target Compound List (TCL) semivolatile organic compounds (SVOCs), TCL pesticides, TCL PCBs and Target Analyte List (TAL) metals. Table 1 provides a list of the surface soil and surface water samples.

#### 5.3 Soil Boring and Test Pit Program

From May 4 through May 7, 2009, forty-six direct push soil borings were advanced at the site. Twenty-one soil borings were advanced in the north area, 15 soil borings were advanced in the "neck" of the property, and six soil borings were advanced in the southern property block (Figure 2). Soil boring locations were selected by the NYSDEC and sample locations are annotated as SB-1 through SB-25, and B-1 through B-21. Soil borings were advanced with a Geoprobe® Model 6610DT unit to depths of approximately eight feet, and several to 12 feet. Continuous sample cores of overburden were collected using a MacroCore barrel with clean dedicated acetate liners. Sample cores were screened for organic vapors using a photoionization detector (PID). If no evidence of contamination was present, then a composite soil sample from the entire length of the soil core was collected. Recovered soil samples were characterized with respect to predominant soil type (i.e., gravel, sand, silt, clay) color, and relative moisture content (i.e., moist, wet, saturated). This information was then placed in the field book so that geologic logs of subsurface materials could be generated. Samples for chemical analysis were not collected from each boring. Table 1 provides a list of the soil boring samples, and the soil boring logs are attached as Appendix A.

Twenty-one test pits were excavated at the locations shown on Figures 2 and 3 using a Case 580L tire mounted back hoe. Test pits were excavated to a depth of approximately 10 feet below ground surface at locations selected by the NYSDEC. A test pit log was sketched for each test pit to describe general subsurface conditions, and to describe to location of sampling points prior to pit closure. Samples for chemical analysis were not collected from all test pits. Table 1 provides a list of the test pit samples, and the test pit logs are attached as Appendix B.

To the extent possible, soil cores and test pit spoils were placed back into the borings or test pits, and/or spread on the ground surface near each boring or test pit.

Twenty-five soil samples were collected from the soil borings; eight soil samples and one water sample were collected from the test pits for chemical analysis, based on PID readings, the presence of visible staining, and odors. Soil samples were placed in clean glassware provide by the contract laboratory using protocols previously discussed, and were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs and TAL metals.

Samples were placed in clean glassware provided by the contract laboratory, labeled with a unique sample identification code, packed in a cooler with ice, and shipped under chain-of-custody control to the contract laboratory.

#### 5.4 Groundwater Monitoring Wells

Four new groundwater monitoring wells were installed at the locations shown on Figure 2. A CME 55 track mounted drill rig was used to install the wells to a depth of approximately 30 feet below ground surface. The wells were installed with 4 ¼ inch hollow stem augers (HSAs) along with continuous split spoon sampling. Table 2 provides a summary of the groundwater monitoring well numbers and construction information. Boring logs for the groundwater monitoring wells are attached as Appendix C.

The wells were constructed of two inch diameter threaded flush joint schedule 40 PVC screen with 0.010 inch slots, threaded bottom plugs, and flush-threaded PVC riser pipe. Well screens were 10.0feet spanning the saturated thickness of the water bearing zone encountered. A filter pack consisting of #2 silica sand was placed in the annular space between the well screen and the borehole to approximately two feet above the well screen. A two foot thick bentonite seal comprised of bentonite pellets was then placed above the filter pack. The bentonite pellets were then allowed to hydrate. Once hydrated, a 5% bentonite-cement grout was placed in the annular space to the ground surface. An above ground protective casing with a locking cap was then in cement at the surface to protect each well at the surface. Well construction diagrams are also attached to the boring logs in Appendix C.

Newly installed groundwater monitoring wells that could be accessed by truck were developed using a "Vac" truck. The well contents were evacuated, and the wells were then allowed to recharge. This process was repeated multiple times until the water clarity was good. More remote wells were hand developed using bailers. Well development water was containerized in 55-gallon drums pending analytical results. The four existing site groundwater monitoring wells were also developed for sampling. Existing site wells were also "jetted" with compressed air to loosen sediment that had settled to the bottom of the well and compacted. During this process, one of the existing wells (MW-2) was noted to be damaged. This well was subsequently decommissioned with a Dietrich 120 truck mounted drill and replaced with monitoring well MW-2R. MW-003 could not be entered and is collapsed at 17.0 feet. Well development information ism summarized on Table 2A.

Once developed, the four existing site groundwater monitoring wells and the four newly installed wells were sampled using dedicated bailers. Three well volumes of water were removed prior sample collection. Groundwater samples were placed in clean glassware supplied by the contract laboratory. The jars were labeled with a unique sample identification code, packed on ice in a cooler and shipped to the contract laboratory under chain-of-custody control. Groundwater samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs and TAL metals.

#### 5.5 Oil/Water Separators, Site Sewer and Underground Storage Tanks

One oil/water separator, one catchment basin manhole, a central site storm sewer, four USTs, one AST, and the mechanic's pit were sampled as part of field investigative activities (Figure 3). Four water (OWS-1, MH-1, MH-2, and T-4 NAPL); two sediment/sludge sample (SS-1, mechanic's pit) and five NAPL samples (T-1 through T-5) were collected as part of this task, which are described on Table 1.

Tanks 1 and 2 (estimated at 4,000 gallons each) are USTs located along the western property boundary approximately 150 to 200 feet south of River Road between soil borings SB-2 and SB-8. Tank 3 (estimated at 10,000 gallons) is also a UST located along the east side of the former building near soil boring SB-21. Tank 4 is also a UST (estimated at 12,000 gallons), and is located due west of the oil/water separator between borings

SEPNW and SEPSE. Tank 5 was an above ground storage tank (AST) at the southeast corner of the former building that has been removed.

Samples were placed in clean glassware and shipped to the contract laboratory using the same sampling protocols used for other sample collection events. Samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, and TAL metals. NAPL samples were also analyzed for petroleum identification.

#### 5.6 Suspected Drum Area and Tank 10 Lagoon Sampling

During late July and early August, AST #4 (a 5,000,000 tank) was decommissioned and removed from the site. During post removal grading activities, a suspected drum burial area was uncovered by the excavation contractor. This was further investigated on August 26, 2009, when six test trenches were excavated to investigate the area AST just south of AST #4. Several drums were uncovered in the test trenches that were excavated (Figure 3). In addition, groundwater with free product entered Test Trench 3. Soils from test trenches were left piled at the site and a sample was collected for disposal purposes. Soil sample analyses include TCLP benzene, TCLP lead, flashpoint, total petroleum hydrocarbons (TPH) and pH for disposal purposes.

The tank 10 lagoon was also investigated on August 26, 2009 to characterize sediment quality. One sediment sample was collected using a backhoe from the location shown on Figure 3. The sediment sample was given a unique sample identification codes (L10-1), and was analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, PCBs and TAL metals. The addendum report along with analytical results for these samples is also provided as an addendum to this report (Appendix E).

#### **6.0 SAMPLE ANALYSIS**

A total of 89 investigative samples were collected as part of this project. For each sampling event, the same protocols were followed:

- Dedicated or clean sampling equipment was used to collect each sample so that cross contamination could not take place;
- Each sample was given a unique sample identification code;
- Each sample was placed in clean glassware provided by the contract laboratory, then placed in a cooler and packed on ice;
- Coolers were shipped to the contract laboratory to undergo the respective analytical procedure; and
- All samples were shipped using chain-of-custody protocols.

Test America in Amherst, New York provided all analytical services for the soil, sediment, sludge, surface water, groundwater and NAPL samples that were collected as part of this project.

#### 7.0 DATA USABILITY SUMMARY REPORT (DUSR)

Once the analytical results were received for Test America, a data usability summary report (DUSR) was completed to determine whether or not the data meets the specific criteria for data quality by USEPA Region 2 Data Validation Guidelines. Data deficiencies, analytical protocol deviations and quality control problems were identified and the effect on the data was discussed. The DUSR was completed and has already been forwarded to the NYSDEC under separate cover.

#### 8.0 FINDINGS AND RESULTS

#### 8.1 Geology

Based on observations collected during the installation of monitoring wells, the completion of soil borings and tests pits, subsurface conditions across the site are variable. The site can be roughly broken into two separate parts spatially, with the small stream in the middle of the site located south of monitoring wells MW-001 and MW-004 and north of MW-007.

Northern Quarter. The area north of the stream is dominated by fill materials especially noted in the former above ground storage tank area as documented in test pit logs, and select direct push boring logs. The subsurface in this area was a non-homogeneous mixture of gravels, sands clays and silts. The areas where the test pits were completed were likely reworked to create the berm system that is present on site, with a number of test pits (TP-4, TP-5, TP-6, TP-12, TP-16, TP-18 and TP-19) showing evidence of petroleum impacts. PID readings in these test pits ranged from non-detects (below 10 ppm) to 1,000+ ppm at TP-10 at a depth of 10 feet below grade. Just north of the small creek is reportedly an area where construction and demolition debris was buried and covered with a veneer of topsoil.

Direct push soil borings labeled "SB" borings were completed north of the small creek and the former AST dike areas. Soils in these borings were primarily a mixture of clays and silts with several notable areas of sediment with different composition as follows: SB-5 and SB-6 contained areas of silty sand at 1 to 5 feet below grade and SB-7, which had silty sand located at 5 to 9 feet below grade. Boring SB-12 is predominantly sand between 1 and 10 feet below grade. There are other sandy clay areas in borings SB-19 through SB-21 at depths ranging between 1 and 12 feet below grade.

In the northernmost portion of the site, elevated PID readings above site background were observed in borings SB-1, SB-5, SB-7 through SB-10, SB-13 and 14, and SB-16 through SB-19.

Southern Three Quarters of the Site. In the area south of the small creek, soils are dominated by clays and silts. Direct push borings labeled "B"s were advanced in this area. Borings B-4 through B-10 and B-17 through B-21 were primarily sandy silts and clays. The remaining borings consist of silty clays and clayey silts with reduced amounts of sand. There were no elevated PID results from soil borings in this area of the site.

Bedrock was not encountered in any of the groundwater monitoring wells that were installed. Thus, bedrock exists at a depth greater than 32 feet below grade.

#### 8.2 Hydrogeology

Depth to groundwater was highly variable across the site, and was encountered as deep as 29.04 feet at MW-006, to a shallow depth of 5.12 feet at MW-2R (Table 2). Depth to groundwater exceeded 25 feet at two locations (MW-006 and MW-007), but in general was less than 10 feet below grade. Groundwater elevations ranged from 555.16 feet at MW-007, to a high of 592.89 feet at MW-008. Groundwater elevations are highest in the southern portion of the site (MW-008 and MW-009), and slope northward to the central area of the site, where the groundwater elevation is 555.16 feet at MW-007. Groundwater elevations then generally increase toward the northern end of the site to between 567.15 feet at MW-006, to 579.31 feet at MW-004. MW-005 at 556.05 feet and MW-002 at 591.46 are exceptions to this general trend.

#### 8.3 Site Infrastructure

During August 2009, most of the infrastructure on the northern developed portion of the site was razed. The two story 10,460 square foot vacant building, truck loading racks along River Road and the 5,000,000 gallon aboveground oil storage tank were all decommissioned. The USTs are still in place at this time, as are the earthen berm areas that were utilized onsite as containment structures for the above ground storage tanks.

#### 8.4 Surface Soil Sample Analytical Results

VOC concentrations in surface soils were non-detect in 19 of 22 samples, with VOCs detected in samples SS-1, SS-5 and SS-11 up to 67.1 micrograms per kilogram. Acetone in SS-11 exceeded the Part 375 soil cleanup objective (SCO) for unrestricted use.

SVOC concentrations in surface soil samples are summarized on Table 3B. SVOC concentrations in site surface soils ranged from non-detect at two locations (SS-5 and SS-15), up to 19 SVOCs detected in the other site surface soil samples at concentrations up to 73,760 micrograms per kilogram at SS-3. Seven SVOCs exceeded the Part 375 SCO for unrestricted use.

Pesticide concentrations in site surface soils are summarized on Table 3C. Pesticide concentrations in site surface soils ranged from non-detect at 12 of 22 locations, up to 230 micrograms per kilogram at SS-1. Except for 1.8 micrograms per kilogram at SS-2, all pesticide values were estimated values. However, two pesticides exceeded the Part 375 SCO for unrestricted use.

PCB concentrations in site surface soils are summarized on Table 3D. PCB concentrations in site surface soils ranged from non-detect at 20 of 22 locations, to 100.0 micrograms per kilogram at SS-2. There were no exceedances of the Part 375 SCO for unrestricted use.

Metals concentrations in site surface soils are summarized on Table 3E, and generally are similar to eastern USA background concentrations.

#### 8.5 Surface Water Sample Analytical Results

VOC concentrations in site surface water samples are summarized in Table 4A. VOCs were not detected in sample SW-1, but were detected in the other three surface water samples at estimated (J) values. Detections were below TOGS 1.1.1 Guidance values.

SVOC concentrations in surface water samples are summarized on Table 4B. There were no SVOCs detected in the four surface water samples.

Pesticide concentrations in site surface water are summarized on Table 4C. Pesticides were not detected in surface water sample SW-1, but were detected at estimated (J) values in three of the four surface water samples at up to 0.074 micrograms per liter. All detections were below TOG 1.1.1 guidance values.

PCB concentrations in site surface water are summarized on Table 4D. There were no PCBs detected in the four surface water samples collected.

Metals concentrations in site surface water are summarized on Table 4E.

#### 8.6 Boring Sample Analytical Results

VOC concentrations in soil borings are summarized on Table 5A. VOC concentrations in the 24 soil boring samples ranged from non-detect at seven locations, up to 31,194 micrograms per kilogram at SB-18 (1-4). Acetone, benzene, ethylbenzene and total xylenes exceeded Part 375 SCOs for unrestricted use at seven locations.

SVOC concentrations (summarized on Table 5B) in soil boring samples ranged from non-detect at six locations, up to 138,240 micrograms per kilogram at SB-1 (1-4). Benzo(a)pyrene and chrysene exceeded Part 375 SCOs for unrestricted use at SB-16.

Pesticide concentrations (summarized on Table 5C) in soil boring samples ranged from non-detect in nine of 24 samples, up to 8.1 micrograms per kilogram at SB-18 (1-4). There were no exceedances of Part 375 SCOs for unrestricted use.

PCB concentrations (summarized on Table 5D) in soil boring samples ranged from non-detect at 22 of 24 locations, up to 29.0 micrograms per kilogram at SB-12 (1-3). There were no exceedances of the Part 375 SCOs for unrestricted use.

Metals concentrations are summarized on Table 5E, and generally are similar to eastern USA background concentrations.

#### 8.7 Monitoring Well Soil Sampling Results

VOC concentrations (summarized on Table 5A) in soil samples from the four new monitoring wells ranged from non-detect at MW-005, MW-006, MW-007, to 1.2 micrograms per kilogram at MW-008 with no exceedance of Part 375 SCOs for unrestricted use.

SVOC concentrations in soil samples from the four new monitoring wells (summarized on Table 5B) ranged from non-detect at MW-007, to 565.0 micrograms per kilogram at MW-005 with no exceedance of Part 375 SCOs for unrestricted use..

Pesticides were not detected in soils samples from the four new monitoring wells (summarized on Table 5C).

PCBs were also not detected in soil samples from the four new monitoring wells (summarized on Table 5D).

Metals concentrations in soil samples from the four new monitoring wells are summarized on Table 5E and generally are similar to eastern USA background concentrations.

#### 8.8 Test Pit Sample Results

All eight soil samples and one water sample from test pits had detections of VOCs. The water sample (WS4P) had a total concentration of VOCs of 1,505.80 micrograms per liter. VOCs in test pit soil samples ranged from a low concentration of 26.0 micrograms per kilogram at TP-6P, to a high concentration of 223,710.0 micrograms per kilogram at TP-21. Acetone, benzene, ethylbenzene, toluene and total xylenes were detected at concentrations above Part 375 SCOs for unrestricted use.

SVOC concentrations in the eight test pit soil samples(summarized on Table 5B) ranged from non-detect at TP-4 and TP-6B, up to 134,540 micrograms per kilogram at test pit TP-21. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and naphthalene were detected in TP-21 at

concentrations that exceeded Part 375 guidance for unrestricted use, while naphthalene was detected in TP-6 above Part 375 SCOs for unrestricted use.

Pesticide concentrations in the eight test pit soil samples (summarized on Table 5C) ranged from non-detect at three locations, to 509.0 micrograms per kilogram at test pit TP-6. There were no exceedances of part 375 SCOs for unrestricted use.

PCB concentrations in soil samples from the eight test pit samples (summarized on Table 5D) ranged from non-detect at five locations, up to 20,000.0 micrograms per kilogram at TP-6, which exceeds the Part 375 SCOs for unrestricted use.

Metals concentrations in soil samples from the 21 test pits are summarized on Table 5E and generally are similar to eastern USA background concentrations.

#### 8.9 Groundwater Sample Results

VOC concentrations in groundwater samples from the four new monitoring wells and four existing wells (summarized on Table 6A) ranged from non-detect in four of the eight wells sampled, to 7.13 micrograms per liter at MW-007. None of the VOCs detected were BTEX compounds. Only two VOCs were detected below TOGS 1.1.1 groundwater guidance values.

SVOC concentrations in groundwater samples from the eight wells sampled (summarized on Table 6B) were not detected in seven of the eight wells. Only one SVOC was detected at a J value of 3.1 micrograms per liter in MW-008 below the TOGS 1.1.1 groundwater guidance value.

Pesticide concentrations in groundwater samples from the eight wells sampled (summarized on Table 6C) ranged from non-detect in three of the eight wells up to 0.135 micrograms per liter at MW-005. Endosulfan at MW – 005 exceeded the TOGS 1.1.1 groundwater guidance value.

PCBs were not detected in any of the eight groundwater samples that were analyzed.

Metals concentrations in groundwater samples from the four new monitoring wells and four existing wells are summarized on Table 6E. Six metals exceeded the TOGS 1.1.1. groundwater guidance values.

#### 8.10 Underground Storage Tank Samples

Seven VOC were detected in UST NAPL waste samples (summarized on Table 7A) consisting mostly of benzene, hexane, toluene and xylene compounds. Ten SVOCs were also detected in UST NAPL samples (summarized on Table 7B). Pesticides were not analyzed for in the NAPL samples and there were no PCBs found in the NAPL samples (Table 7D). Metals concentrations in UST NAPL samples are summarized on Table 7E.

Material identification testing on the NAPL samples revealed the following:

- Sample T-1 NAPL is from #2 fuel oil;
- Sample T-2 NAPL is from #4 fuel oil;
- Sample T-3 NAPL is from #2 fuel oil;
- Sample T-4 NAPL is from #4 fuel oil; and
- Sample T-5 NAPL is from #4 fuel oil.

#### 8.11 Oil/Water Separator, Site Sewer, Mechanics Pit

VOCs were not detected in water samples from the oil/water separator, site sewer and mechanics pit (summarized on Table 8A).

SVOC concentrations in water samples from the oil/water separator, site sewer and mechanics pit (summarized on Table 8B) ranged from non-detect in the oil/water separator and manhole 2, up to 22.36 micrograms per liter in manhole 1 and 2.9 micrograms per liter at the mechanics pit. All values were estimated (J) values. Four SVOCs exceeded TOGS 1.1.1 water guidance values at MH-1.

Gamma chlordane was the only pestici8de detected in this sample set at values below TOGS 1.1.1 guidance values (Table 8C).

PCB concentrations in water samples from the oil/water separator, site sewer and mechanics pit were non-detect in OWS-1, MH-2 and the mechanics pit. PCB concentrations in MH-1 were 0.33 micrograms per kilogram as an estimated (J) value (summarized on Table 8D).

Metals concentrations in water samples from the oil/water separator, site sewer and mechanics pit are summarized on Table 8E.

#### 8.12 Sediment Samples, Outflow and Catch Basin Samples

VOC concentrations in sediment samples from this group (summarized on Table 9A) were non-detect in sample SED-3-OF (the outflow), and up to 492.5 micrograms per kilogram in the SED-2 sample. Total VOCs in the other samples in this category ranged from 5.2 micrograms per kilogram at SED-4 (estimated J value) to 492.5 micrograms per kilogram in the SED-2 sample.

SVOC concentrations in sediment samples from this group of samples (summarized on Table 9B) ranged from 374 micrograms per kilogram at SED-5, to 1,054,300 micrograms per kilogram at SED-2. Most of the samples required dilution to attain usable values and are reported as estimated (J) values.

Pesticide concentrations in sediment samples from this group (summarized on Table 9C) were non-detect at SED-3-OF and SED-5, but ranged from 3.8 micrograms per kilogram at SED-4 up to 142 micrograms per kilogram at SED-6.

PCB concentrations in sediment samples from this group were non-detect at SED-3-OF, SED-5, SED-6 and SS-1. PCB concentrations were 46 micrograms per kilogram at SED-4, and 290 micrograms per kilogram at SED-2 (Table 9D).

Metals concentrations in sediment samples from this group are summarized on Table 9E, and were generally similar to eastern USA background levels.

#### 9.0 ANALYTICAL REPORTS

Analytical laboratory reports from Test America, the contract laboratory, have been forwarded to the NYSDEDC in advance of this report (Appendix D).

#### 10.0 SUMMARY

The site investigation for the Riverview Industrial Center was completed in accordance with the NYSDEC Work Plan dated March of 2009. OP-TECH completed this work at the direction of NYSDEC Region 9 personnel. Chemical analysis of samples was completed by Test America, under direct contract to the NYSDEC. Sample results indicate impacts from historic operations on the northern half of the property, with few impacts on the southern half of the property, south of the small creek that crosses the property.

The DUSR and additional sampling completed the last week of August was forwarded to the NYSDEC under separate cover.

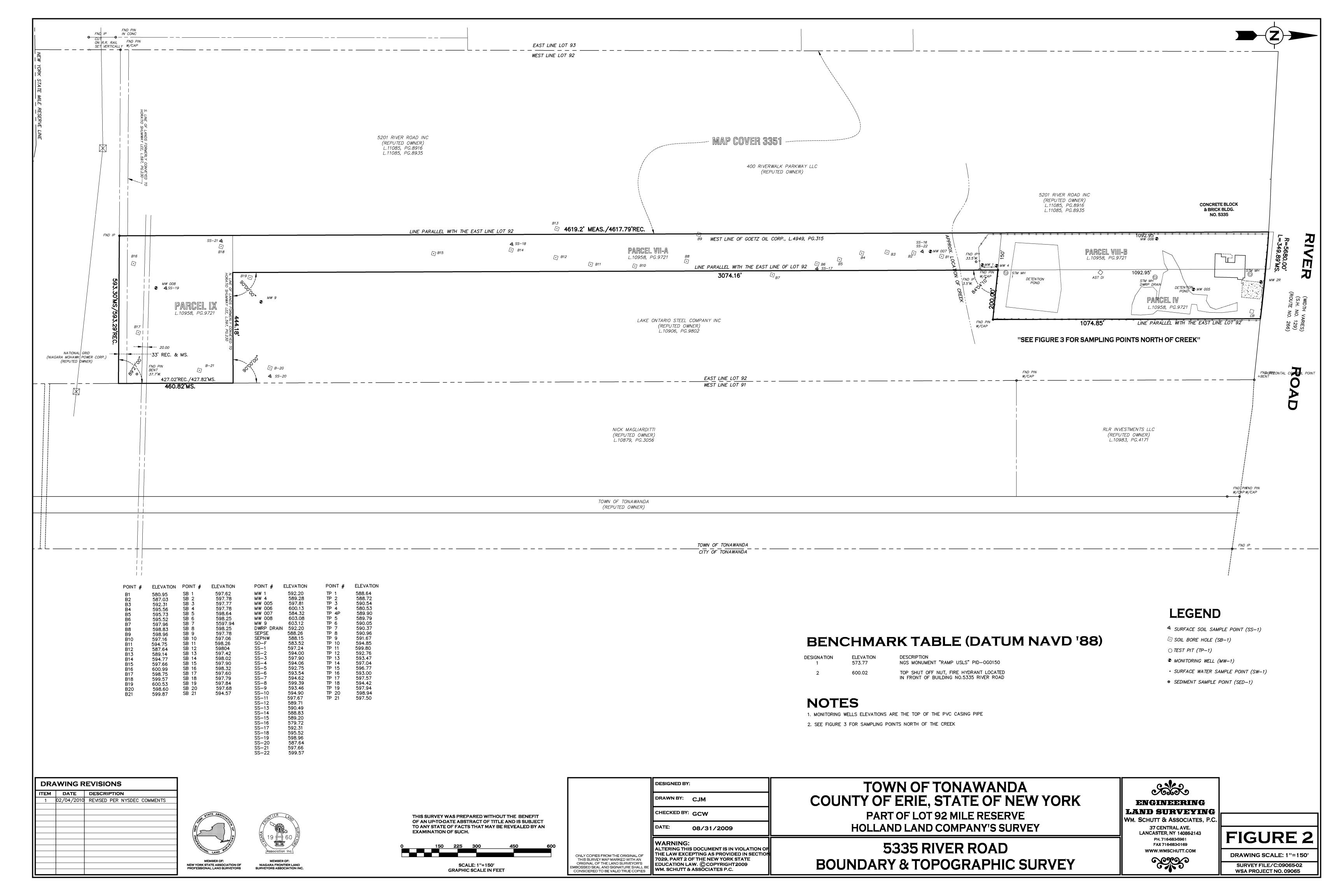
#### **FIGURES**

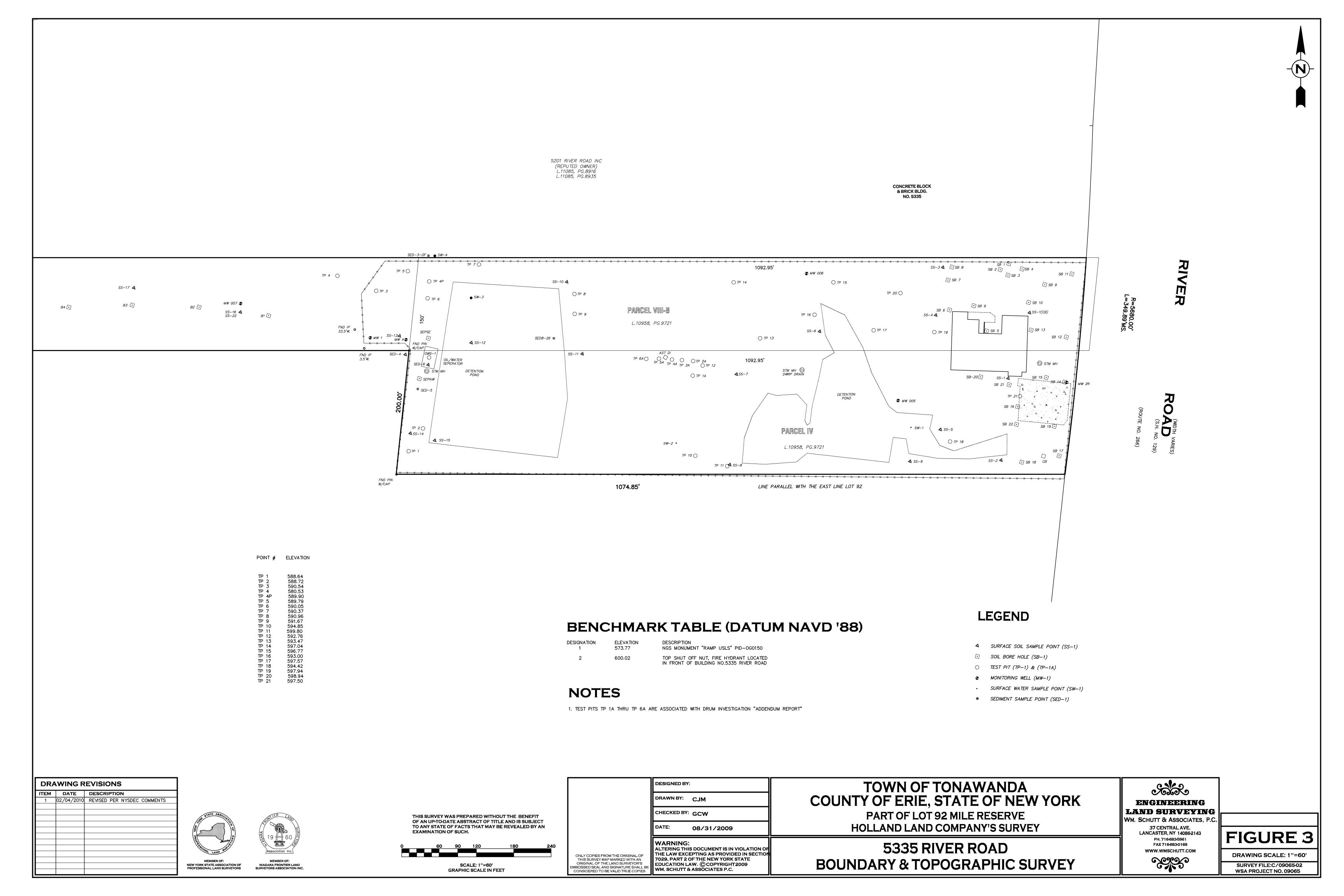


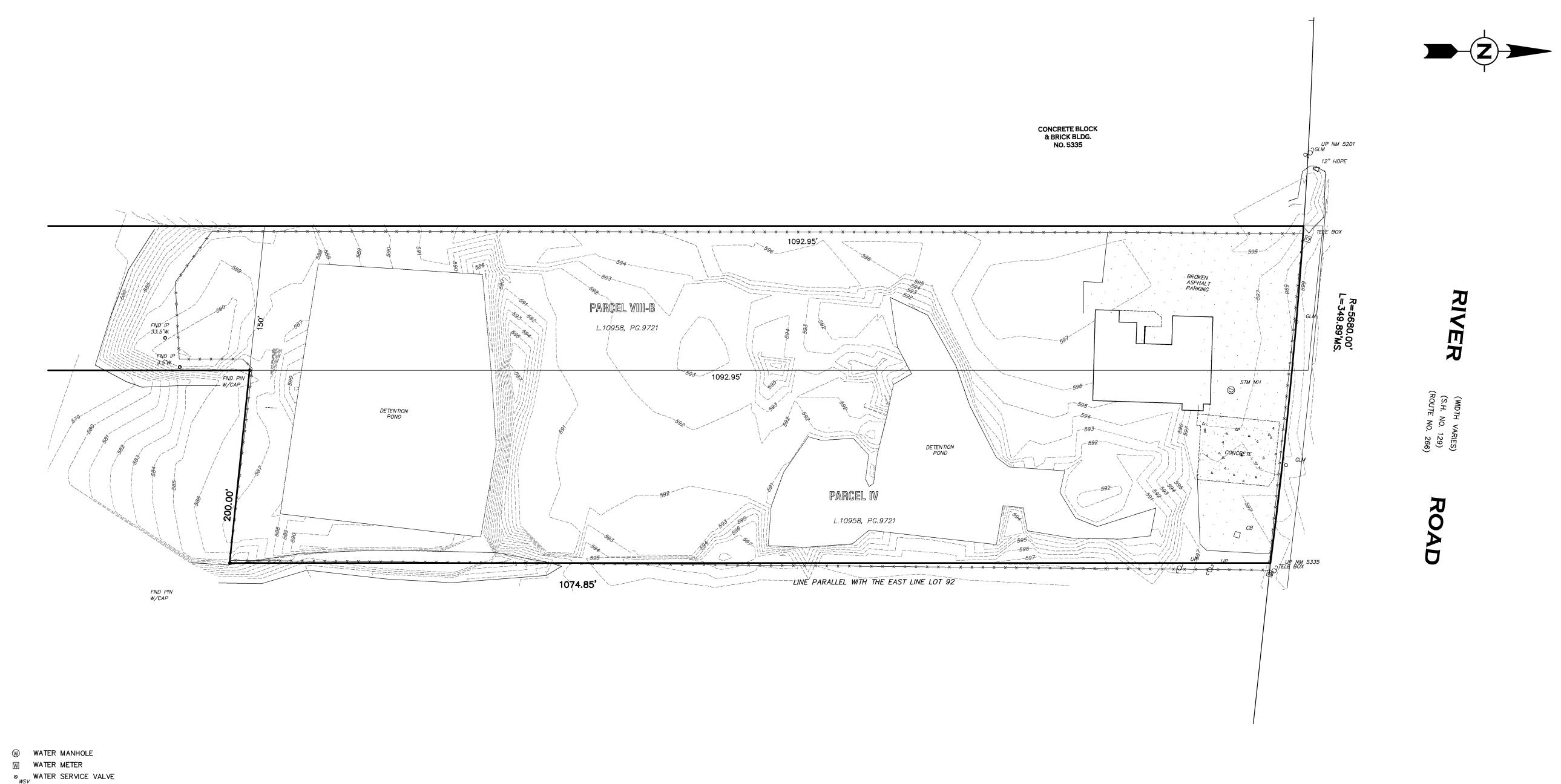
0 0.05 0.1 0.15 0.2 Miles 0 300 600 900 1,200 Feet 5335 River Road (SBL: 52.06-3-10) Riverview Industrial Complex

Figure 1: Site Location Map

Parcels
Riverview Industrial Complex
Municipal Boundaries







## **LEGEND**

- BM BENCHMARK

  BOL BOLLARD

  CB CATCH BASIN

  CO CLEANOUT

  COMMUNICATIONS BOX

  COMMUNICATIONS MANHOLE

  COLM COMMUNICATIONS MARKER

  CVT COMMUNICATIONS VAULT

  CONIFEROUS SHRUB

  CONIFEROUS TREE

  CUT

  DECIDUOUS SHRUB
- □ CUT
   □ DECIDUOUS SHRUB
   □ DECIDUOUS TREE
   □ DRILL/AUGER HOLE

ANTENNA/DISH

© ELECTRIC METER

☐ END SECTION

© FILLER CAPS

© ELECTRIC MANHOLE

- © FILLER CAPS

  °<sub>FP</sub> FLAG POLE

  <sup>™</sup> FLOOD LIGHT
- © GAS MANHOLE

  © GAS METER

  ® GSVGAS SERVICE VALVE
- © GAS VALVE

  SOUTH WIRE

HANDICAP PARKING

- A<sub>HYD</sub>HYDRANT ○ PROPERTY MONUMENT
- □v MAILBOX

  ⚠ MONUMENT AS DESCRIBED

  ○OLMOIL LINE MARKER
- P PHONE BOOTH
  > PIPE OUTLET

  •POST
  POST
  POWER VAULT
- RAILROAD CONTROL BOX
  S SANITARY SEWER MANHOLE
  SCUPPER
- SIGN (SINGLE POLE)
  SIGN (DOUBLE POLE)
  SIGN (TRIPLE POLE)
- SIGNAL POLESIGNAL POLE (WITH TRAFFIC
- UTILITY BOX)

  STORM SEWER MANHOLE

  TRAFFIC CONTROL BOX

  TRAFFIC PULLBOX
- UNKNOWN MANHOLE

  UTILITY BOX

  UTILITY POLE

  UTILITY POLE WITH LIGHT

- WATER SERVICE VA

  WATER SERVICE VA

  WELL

  WELL

  YARD DRAIN
  - BERM

    CENTERLINE OF ROAD

    CENTERLINE OF DITCH

    FENCE (CHAINLINK)

    FENCE (WOOD)

    GAS MAIN

    GUIDE RAIL (BOX BEAM)

    GUIDE RAIL (W BEAM)

    OVERHEAD WIRES

    LOT LINE

    PARCEL LINE

    RIGHT OF WAY LINE

    SANITARY SEWER LINE

    STORM SEWER LINE

UNDERGROUND CONDUIT

UNDERGROUND ELECTRIC

### BENCHMARK TABLE (DATUM NAVD '88)

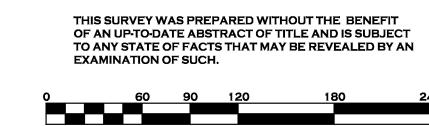
DESIGNATION	ELEVATION	DESCRIPTION
1	573.77	NGS MONUMENT "RAMP USLS" PID-OG0150
2	600.02	TOP SHUT OFF NUT, FIRE HYDRANT LOCATED IN FRONT OF BUILDING NO.5335 RIVER ROAD

MONITORING WELLS ELEVATIONS ARE THE TOP OF THE PVC CASING PIPE

DRA	DRAWING REVISIONS												
ITEM	DATE	DESCRIPTION											







**GRAPHIC SCALE IN FEET** 

T ECT 'AN	
<u>2</u> 40	
	ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MAP MARKED WITH AN

DESIGNED BY:	
DRAWN BY:	CJM
CHECKED BY:	GCW
DATE:	08/31/2009
WARNING:	S DOCUMENT IS IN VIOLATION OF

THE LAW EXCEPTING AS PROVIDED IN SECTION

7029, PART 2 OF THE NEW YORK STATE

EDUCATION LAW. © COPYRIGHT 2009

WM. SCHUTT & ASSOCIATES P.C.

### TOWN OF TONAWANDA COUNTY OF ERIE, STATE OF NEW YORK PART OF LOT 92 MILE RESERVE

PART OF LOT 92 MILE RESERVE HOLLAND LAND COMPANY'S SURVEY

5335 RIVER ROAD BOUNDARY & TOPOGRAPHIC SURVEY



FIGURE 4

1"=60"

SURVEY FILE:C/09065-04
WSA PROJECT NO. 09065

#### **TABLES**

#### **TABLE 1: RIVERVIEW INDUSTRIAL CENTER SAMPLE SCHEDULE**

							Analysis Required			ed	
Media	Identifier	Date	Matrix	Туре	# of Locations	# Samples	VOCs	SVOCs	PEST	PCBs	Metals
Surface Soil	SS-1 to SS-22	5/15/2009	Solid	Grab	22	22	Х	Х	Х	Х	Х
Tables 3A-3D											
	SW-1	5/18/2009	Water	Grab			Х	Х	Х	Х	Х
<b>Surface Water</b>	SW-2	5/18/2009	Water	Grab	4	4	Х	Х	Х	Х	Х
Tables 4A-4D	SW-3	518/2009	Water	Grab	]		Х	Х	Х	Х	Х
	SW-4	5/29/2009	Water	Grab			Х	Х	Х	Х	Х
	SB-1 (1-3)	5/4/2009	Solid	Grab			Х	Х	Х	Х	Х
	SB-2 (1-2)	5/4/2009	Solid	Grab	]		Х	Х	Х	Х	Х
	SB -5 (0-2)	5/6/2009	Solid	Grab	1		Х	Х	Х	Х	Х
	SB-5	5/4/2009	Solid	Composite	1		Х	Х	Х	Х	Х
	SB-6 (1-4)	5/4/2009	Solid	Composite	]		Х	Х	Х	Х	Х
	SB-7 (1-3)	5/4/2009	Solid	Grab			Х	Х	Х	Х	Х
	SB-8 (0-4)	5/4/2009	Solid	Composite			Х	Х	Х	Х	Х
	SB-8D (5-9)	5/4/2009	Solid	Composite			Х	Х	Х	Х	Х
	SB-9 (1-4)	5/4/2009	Solid	Composite			Х	Х	Х	X	Х
	SB-12 (1-3)	5/4/2009	Solid	Grab			Х	Х	Х	Х	Х
	SB-13 (1-5)	5/4/2009	Solid	Composite			Х	Х	Х	X	Х
<b>Soil Boring Samples</b>	SB-14 (1-4)	5/4/2009	Solid	Composite	21 SB locations		Х	Х	Х	Х	Х
	SB-15 (1-4)	5/4/2009	Solid	Composite	& 21 B locations	25	Х	Х	Х	X	Х
Tables 5A-5E	SB-16 (1-4)	5/5/2009	Solid	Composite	Total = 42 Locations		Х	Х	Х	X	Х
	SB-17 (1-4)	5/5/2009	Solid	Composite			Х	Х	Х	X	Х
	SB-17 (4-5)	5/5/2009	Solid	Composite			Х	Х	Х	X	Х
	SB-18 (1-4)	5/5/2009	Solid	Composite			Х	Х	Х	X	Х
	SB-22 (4-6) SB-21	5/5/2009	Solid	Grab			Х	Х	Х	X	Х
	B-1 (0-2)	5/6/2009	Solid	Grab			Х	Х	Х	X	Х
	B-1 (4-6)	5/7/2009	Solid	Grab			Х	Х	Х	X	Х
	B-2 (0-2)	5/6/2009	Solid	Grab			Х	Х	Х	X	Х
	B-2 (4-7)	5/5/2009	Solid	Composite			Х	Х	Х	Х	Х
	B-7 (1-4)	5/6/2009	Solid	Composite			Х	Х	Х	Х	Х
	B-13 (0-4)	5/5/2009	Solid	Composite			Х	Х	Х	Х	Х
	B-15 (0-4)	5/6/2009	Solid	Composite			Х	Х	Х	Х	Χ
Monitoring Well	MW-005 (8-10)	5/8/2009	Solid	Grab			Х	Х	Х	Х	Х
Soil Samples	MW-006 (2-4)	5/8/2009	Solid	Grab	4	4	Х	Х	Х	Х	Х
-	MW-007 (5-9)	5/11/2009	Solid	Grab			Х	Х	Х	Х	Х
Tables 5A-5E	MW-8 (14-16)	5/13/2009	Solid	Grab	]		Х	Х	Х	Х	Х

#### **TABLE 1: RIVERVIEW INDUSTRIAL CENTER SAMPLE SCHEDULE (Continued)**

							Analysis Required						
Media	Identifier	Date	Matrix	Туре	# of Locations	# Samples	VOCs	SVOCs	PEST	PCBs	Metal		
	TP-3	5/11/2009	Solid	Grab			X	X	X	Χ	X		
	TP-4	5/11/2009	Solid	Grab			Х	Х	Х	Х	X		
	WS4P	5/14/2009	Water	Grab			Х	Х	Х	Х	X		
Test Pits	TP-6	5/11/2009	Solid	Grab			Х	X	Х	Х	X		
	TP-6B	5/11/2009	Solid	Grab	21	9	Х	X	Х	Х	Х		
Tables 5A-5E	TP-10	5/12/2009	Solid	Grab			Х	X	Х	Х	Х		
	TP-13	5/12/2009	Solid	Grab			X	X	X	Х	Х		
	TP-19	5/14/2009	Solid	Grab			X	X	X	Х	Х		
	TP-21	5/14/2009	Solid	Grab			Х	X	Х	Х	Х		
	MW-1	6/13/2009	Water	Grab			Х	Х	Х	Х	Х		
	MW-2R	6/13/2009	Water	Grab			Х	Х	Х	Х	Х		
Groundwater	MW-3	6/13/2009	Water	Grab			Х	Х	Х	Х	Х		
Samples	MW-4	6/13/2009	Water	Grab	7		Х	Х	Х	Х	Х		
-	MW-005	6/13/2009	Water	Grab	8	8	Х	Х	Х	Х	Х		
Tables 6A-6E	MW-006	6/13/2009	Water	Grab			Х	Х	Х	Х	Х		
	MW-007	6/12/2009	Water	Grab			Х	Х	Х	Х	Х		
	MW-008	6/12/2009	Water	Grab			Х	Х	Х	Х	Х		
	Dup-13	6/13/2009	Water	Grab			Х	Х	Х	Х	Х		
Oil/Water Separator	OWS-1	5/18 & 5/21	Water	Grab	1	1	Х	Х	Х	Х	Х		
Table 8A-8E		-,											
Site Sewer	MH-1	5/15 & 5/21	Water	Grab	2	2	Х	Х	Х	Х	X		
Tables 8A-8E	MH-2	5/19/2009	Water	Grab			Х	Х	Х	Х	Х		
	T-1 NAPL	5/19/2009	Waste	Grab			Х	Х	Х	Х	Х		
USTs	T-2 NAPL	5/19/2009	Waste	Grab	-		X	X	X	X	X		
00.10	T-3 NAPL	5/19/2009	Waste	Grab	-		X	X	X	X	X		
Tables 7A-7F	T-4 NAPL	5/19/2009	Waste	Grab	5	6	X	X	X	X	X		
10010377171	T-4 NAPL	5/18/2009	Water	Grab	<b>-</b>	Ĭ	X	X	X	X	X		
	T-5 NAPL	5/19/2009	Waste	Grab	-		X	X	X	X	X		
Mechanics Pit	Mechanics Pit	5/18/2009	Water	Grab	1	1	X	X	X	X	X		
Tables 8A-8E	IVIECTIATICS FIL	3/10/2003	vvater	Grab	┥	_		^		^	<del>                                     </del>		
TUDICS OA-OL	SED-2	5/13/2009	Solid	Grab				Х	Х		X		
Cadimont Camples	SED-3-OF	5/18/2009	Solid	Grab	-		X	X	X	X	X		
Sediment Samples						_				1	+		
Tables OA OF	SED-4	5/18/2009	Solid	Grab	5	5	X	X	X	X	X		
Tables 9A-9E	SED-5	5/18/2009	Solid	Grab	-		X	X	X	X	X		
0	SED-6	5/18/2009	Solid	Grab		1 .	X				X		
Catch Basin Tables 9A-9E	SS-1 (Catch Basin)	5/13/2009	Solid	Grab	1	1	Х	Х	Х	Х	X		
Tank 10 Lagoon	Tank 10 Sed	8/29/2009	Solid	Grab	1	1	Х	Х	Х	Х	Х		

Total # Samples

89

OP-TECH 8/31/2009

#### Table 2: Monitoring Well Information Riverview Industrial Center

Well #	Ground	Top of PVC	Stick Up	Depth to	Elevation	Well Depth	Top Well	Bottom Well	Groundwate
	Elevation	Elevation		Groundwater	Groundwater		Screen	Screen	Elevation
					from PVC				from Grad
MW-001	587.08	591.36	4.28	11.21	580.15	21.2			575.87
MW-2R	596.58	596.93	0.35	5.12	591.81	32**	583.81	32	591.46
MW-003	NC	NC		NC	NC	17.2***			
MW-004	585.54	588.44	2.9	6.23	582.21	22.5			
MW-005	566.17	569.97	3.8	10.12	559.85	32.55	551.85	30	556.05
MW-006	596.19	599.29	3.1	29.04	570.25	33	562.25	30	567.15
MW-007	580.18	583.48	3.3	25.02	558.46	32.43	550.46	30	555.16
MW-008	599.64	602.24	2.6	6.75	595.49	32.5	587.49	30	592.89
MW-009	599.38	602.28	2.9	6.83	595.45	22.5			592.55

#### Notes:

WL= Water Level

NC= Not Collected

All wells purged via Vacuum truck except as noted below.

MW-3 well bocked at 17.2 feet.

MW-8 -0.25 gallons purged.

MW-9-28 gallons purged.

<sup>\*=</sup> Depth from top of casing, predevelopment

<sup>\*\*=</sup>Reinstalled depth, Flush to grade roadbox.

<sup>\*\*\*=</sup>Obstructed well.

<sup>\*\*\*\*\* =</sup> pressure noted on the well cap at time of gaugung/sampling.

#### OP-TECH 3/3/2010

## Table 2a: Monitoring Well Development Information Riverview Industrial Center

Well #		Developme	nt/Surging		Depth to	3 Well Volumes	Gallons			
	Vacuumed	Flushed	Surged	Repeated	Groundwater	Volumes	Removed			
MW-1	Yes	Yes	Yes	4 times	11.69	20.6 Gallons	20.7			
	~ 40 gals	25 gallons		100 gallons						
MW-2	Damaged	NA	NA	NA						
					D	amaged - Not Sam	pled			
MW - 2R	NA	NA	Attempted 10		1.62'	13.78 Gallons	13.8			
			well volumes							
MW-3	Yes	Yes	Yes	4 times						
	~ 40 gals	25 gallons		100 gallons	Damaged - Not Sampled					
MW-4	Yes	Yes	Yes	4 times	6.9'	9.73 Gallons	25			
	~ 40 gals	25 gallons		100 gallons						
MW-005	NA	NA	Attem	pted 10	7.0'	12.5 Gallons	14.7			
			well vo	olumes						
MW-006	NA	NA	Attem	pted 10	25.3'	3.69 Gallons	3.75			
			well vo	olumes						
MW-007	NA	NA	Attem	pted 10	23.72	4.26	Not Available			
			well vo	olumes						
MW-008	NA	NA	Attempted 10		32.1	0.19	0.25			
			well volumes							
MW-9					5.9'	8.1 Gallons	6.5 (Dry)			

## DATA QUALIFIERS AND DEFINITIONS

	Blank areas indicate a non-detect
В	Analyte was detected in the associated Method Blank
B1	Analyte was detected in the associated method blank. Analyte concentration in the sample is
	greater than 10x the concentration found in the method blank.
C-01	To reduce matrix interference, the sample extract has undergone sulfuric acid clean-up, method 3665A,
	which is specific to hydrocarbon contamination.
C-04	To reduce matrix interference, the sample extract has undergone florisil clean-up, method 3620B.,
	which is specific to non-polar compound contamination.
CF6	Results confirmed by reanalyses.
D02	Dilution required due to sample matrix effects.
D03	Dilution required due to excessive foaming.
D04	Dilution required due to high levels of non-target compounds.
D08	Dilution required due to high concentration of target analyte(s)
D10	Dilution required due to sample color.
Е	Concentration exceeds the calibration range and therefore is semi-quantative.
H4	Sample was extracted past holding time, but analyzed within analysis holding time.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method
	Detection Limit (MDL). Concentrations within this range are estimated.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
	Analyte not detected, data not impacted.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
L2	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
L4	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below the acceptance
	limits. A low bias to sample results is indicated.
L5	Analyte recovery outside of specified criteria. Individual analyte criteria exceedences allowed for
	multi-component analyses without disqualification of data per NELAC Standard, DOD QSM and/or
	AFCEE QAPP.
M1	The MS and/or MSD were outside the acceptance limits due to sample matrix interference. See Blank
	Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference.
	See Blank Spike (LCS).
M11	The MS and/or MSD were above the acceptance limits.
M12	The MS and/or MSD were below the acceptance limits. See calibration verification. (CCV)
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS)
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike
	recovery information. See Blank Spike (LCS).
N1	See case narrative.
P11	Sample was not sufficiently preserved at time of collection. Sample pH is >2
QFL	Florisil clean-up (EPA 3620) performed on extract.
QSU	Sulfur (EPA 3660) clean-up performed on extract.
R2	The RPD exceeded the acceptance limit.
R10	The RPD between the primary and confirmatory analysis exceeded 40%. Per method 8000B, the
C.C	lower value was reported due to apparent chromatographic problems.
S6 T10	Sediment present.
71 71	Sample had an adjusted final volume during extraction due to extract matrix and/or viscosity.

Surrogate recovery was above the acceptance limits. Data not impacted.

**Z**2

- Z3 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
- Due to sample matrix effects, the surrogate recovery was outside acceptance limits. Secondary surrogate recovery was within the acceptance limits.
- Z6 Surrogate recover was below acceptance limits.
- ZX Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
- NR Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.



Table 3A: Surface Soil Samples Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY 14150

Soil Sample ID		SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12
Date	Part 375 Unrestricted Use	05/15/09	5/15/2009	5/15/2009	5/15/2009	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/2009	5/15/2009	5/15/2009
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Acetone	50	< 30	< 26	< 31	< 32	< 33	< 40	< 30	< 30	< 27	< 33	50	< 27
Cyclohexane	NL	3.2 J	< 5.1	< 6.2	< 6.4	< 6.7	< 8.1	< 6.0	< 6.0	< 5.4	< 6.6	<6.5	< 5.5
Ethylbenzene	1000	3.6 J	< 5.1	< 6.2	< 6.4	< 6.7	< 8.1	< 6.0	< 6.0	< 5.4	< 6.6	< 6.5	< 5.5
Methylene Chloride	50	3.2 J	< 5.1	< 6.2	< 6.4	1.6 J	< 8.1	< 6.0	< 6.0	< 5.4	< 6.6	7.8	< 5.5
Methylcyclohexane	NL	24	< 5.1	< 6.2	< 6.4	< 6.7	< 8.1	< 6.0	< 6.0	< 5.4	< 6.6	< 6.5	< 5.5
Toluene	700	3.1 J	< 5.1	< 6.2	< 6.4	< 6.7	< 8.1	< 6.0	< 6.0	< 5.4	< 6.6	< 6.5	< 5.5
Xylenes, Total	260	30	< 10	< 12	< 13	< 13	< 16	< 12	< 12	< 11	< 13	< 13	< 11

#### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.
All units are micrograms per kilogram (ug/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

J -Analyte



Table 3A: Surface Soil Samples Volatile Organic Compounds Riverview Industrial Center 5335 River Rd. Tonawanda, NY 14150

Soil Sample ID		SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22
Date	Part 375 Unrestricted Use	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009
Matrix		Solid									
Acetone	50	< 31	< 31	< 34	< 35	< 34	< 39	< 36	< 38	< 37	< 35
Cyclohexane	NL	< 6.2	< 6.1	< 6.8	< 6.9	< 6.8	< 7.8	< 7.2	< 7.7	< 7.4	< 7.1
Ethylbenzene	1000	<6.2	< 6.1	< 6.8	< 6.9	< 6.8	< 7.8	< 7.2	< 7.7	< 7.4	< 7.1
Methylene Chloride	50	<6.2	< 6.1	< 6.8	< 6.9	< 6.8	< 7.8	< 7.2	< 7.7	< 7.4	< 7.1
Methylcyclohexane	NL	<6.2	< 6.1	< 6.8	< 6.9	< 6.8	< 7.8	< 7.2	< 7.7	< 7.4	< 7.1
Toluene	700	<6.2	< 6.1	< 6.8	< 6.9	< 6.8	< 7.8	< 7.2	< 7.7	< 7.4	< 7.1
Xylenes, Total	260	< 12	< 12	< 14	< 14	< 14	< 16	< 14	< 15	< 15	< 14

#### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are micrograms per kilogram (ug/kg)
NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

J -Analyte



#### Table 3B: Surface Soil Samples Semi-Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Part 375	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12
Date	Unrestricted	05/15/09	5/15/2009	5/15/2009	5/15/2009	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/2009	5/15/2009	5/15/2009
Matrix	Use	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
2-Methylnaphthalene	NL	17000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
4-Methylphenol	NL	< 2000	< 1800	< 4100	< 4400	< 450	< 2700	< 400	< 2000	< 370	< 4400	450	<370
Acenaphthene	20000	< 1000	< 910	370D,J	300D,J	< 230	< 1400	< 210	< 1000	< 190	130D,J	< 230	< 190
Acetophenone	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Anthracene	100000	< 1000	< 910	1100D,J	450D,J	< 230	< 1400	< 210	< 1000	< 190	420D,J	< 230	< 190
Benzaldehyde	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Benzo(a)anthracene	1000	< 1000	39D,J	6400D	1500D,J	< 230	60D,J	< 210	71D,J	11J	2300D	< 230	11J
Benzo(a)pyrene	1000	< 1000	< 910	6600D	1200D,J	< 230	< 1400	< 210	81D,J	< 190	2400D	< 230	< 190
Benzo(b)fluoranthene	1000	< 1000	< 910	7900D	1600D,J	< 230	< 1400	11J	100D,J	< 190	2800D	< 230	9.7J
Benzo(g,h,i)perylene	100000	< 1000	< 910	5200D	880D,J	< 230	< 1400	< 210	83D,J	< 190	1900D,J	< 230	< 190
Benzo(k)fluoranthene	800	< 1000	< 910	3400D	710D,J	< 230	< 1400	< 210	51D,J	< 190	1300D,J	< 230	< 190
Biphnyl	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Bis-(2 chloroethoxy) methane	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Bis-(2-ethylhexyl) phthalate	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Carbazole	NL	< 1000	< 910	510D,J	360D,J	< 230	< 1400	< 210	< 1000	< 190	170D,J	< 230	< 190
Chrysene	1000	< 1000	< 910	6300D	1400D,J	< 230	< 1400	< 210	87D,J	< 190	2400D	< 230	< 190
Dibenzo(a,h)anthracene	330	< 1000	< 910	1300D,J	260D,J	< 230	< 1400	< 210	< 1000	< 190	460D,J	< 230	< 190
Dibenzofuran	NL	< 1000	< 910	110D,J	190D,J	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Diethyl phthalate	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Di-n-butyl-phthalate	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Di-n-octyl-phthalate	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Fluoranthene	100000	480J	< 910	13000D	3300D	< 230	< 1400	13J	110D,J	< 190	4600D	< 230	< 190
Fluorene	30000	6000	< 910	280D	180D,J	< 230	< 1400	< 210	< 1000	< 190	140D,J	< 230	< 190
Indeno(1,2,3-cd)pyrene	500	< 1000	< 910	4400D	750D,J	< 230	< 1400	< 210	75D,J	< 190	1600D,J	< 230	< 190
Naphthalene	12000	< 1000	< 910	< 2100	190D,J	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
N-nitrosdiphenylamine	NL	< 1000	< 910	< 2100	< 2300	< 230	< 1400	< 210	< 1000	< 190	< 2300	< 230	< 190
Phenanthrene	100000	7800	< 910	4900D	2800D	< 230	< 1400	11J	73D <b>,</b> J	< 190	1900D,J	< 230	< 190
Pyrene	100000	1300	< 910	11000D	2600D	< 230	< 1400	< 210	110D,J	7.9J	3800D	< 230	10Ј

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)

Concentrations within this range are estimated. D02 -Dilution required due to sample matrix effects.

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

 $<sup>\</sup>label{eq:continuous} J - Analyte \ detected \ at \ a \ level \ less \ than \ the \ Reporting \ Limit \ (RL) \ and \ greater \ than \ or \ equal \ to \ the \ Method \ Detection \ Limit \ (MDL).$ 



#### Table 3B: Surface Soil Samples Semi-Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Part 375	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22
Date	Unrestricted	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009
Matrix	Use	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
2-Methylnaphthalene	NL	12J	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
4-Methylphenol	NL	< 430	< 2100	< 460	< 470	< 2300	< 2700	< 2500	< 2500	< 2500	< 480
Acenaphthene	20000	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Acetophenone	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Anthracene	100000	< 220	83D,J	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Benzaldehyde	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Benzo(a)anthracene	1000	25J	83D,J	< 240	20Ј	82D,J	130D,J	270D,J	110D,J	64D,J	33J
Benzo(a)pyrene	1000	28J	89D,J	< 240	22J	100D,J	150D,J	350D,J	120D,J	< 1300	33J
Benzo(b)fluoranthene	1000	37J	140D,J	< 240	25J	140D,J	190D,J	430D,J	120D,J	< 1300	42J
Benzo(g,h,i)perylene	100000	40J	100D,J	< 240	22J	99D,J	160D,J	370D,J	120D,J	< 1300	22J
Benzo(k)fluoranthene	800	11J	< 1100	< 240	9.5J	< 1200	87D,J	110D,J	58D,J	< 1300	< 250
Biphnyl	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Bis-(2 chloroethoxy) methane	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Bis-(2-ethylhexyl) phthalate	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Carbazole	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Chrysene	1000	24J	160D,J	< 240	16J	85D,J	140D,J	250D,J	86D,J	66D,J	34J
Dibenzo(a,h)anthracene	330	12J	< 1100	< 240	< 240	< 1200	< 1400	76D,J	< 1300	< 1300	< 250
Dibenzofuran	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Diethyl phthalate	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Di-n-butyl-phthalate	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Di-n-octyl-phthalate	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Fluoranthene	100000	40J	110D,J	< 240	28J	130D,J	190D,J	380D,J	120D,J	< 1300	53J
Fluorene	30000	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Indeno(1,2,3-cd)pyrene	500	23J	< 1100	< 240	17J	78D,J	140D,J	260D,J	81D,J	< 1300	< 250
Naphthalene	12000	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
N-nitrosdiphenylamine	NL	< 220	< 1100	< 240	< 240	< 1200	< 1400	< 1300	< 1300	< 1300	< 250
Phenanthrene	100000	< 220	64D,J	< 240	20J	73D <b>,</b> J	110D,J	200D,J	75D <b>,</b> J	< 1300	32J
Pyrene	100000	33J	110D,J	< 240	23J	100D,J	170D,J	370D,J	130D,J	< 1300	41J

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)

D02 -Dilution required due to sample matrix effects.

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.



# Table 3C: Surface Soil Samples Pesticides Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Part 375	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12
Date	Unrestricted	05/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	05/15/09	5/15/09
Matrix	Use	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
4,4'-DDT	3.3	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
4-4'-DDD	3.3	< 200	1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
4-4'-DDE	3.3	< 200	< 1.8	< 21	0.89J	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Aldrin	5	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
alpha-BHC	20	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
alpha-Chlordane	94	< 200	< 1.8	< 21	1.4J	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
beta-BHC	36	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	1.2J	< 19
Chlordane	NL	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 22	< 19
delta-BHC	40	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	1.1J	< 1.9	< 23	< 2.2	< 19
Dieldrin	5	< 200	0.67J	< 21	< 2.1	< 2.3	0.93J	0.67J	< 2.0	< 1.9	7.7D,QFL,J	< 2.2	< 19
Endosulfan I	2400	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Endosulfan II	2400	66D,QFL,J	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Endosulfan Sulfate	2400	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Endrin	14	120D,QFL,J	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Endrin aldehyde	NL	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Endrin Ketone	NL	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
gamma BHC (Lindane)	100	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
gamma- Chlorodane	NL	44D,QFL,J	< 1.8	< 21	1.2J	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	0.94J	< 19
Heptachlor	42	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Heptachlor epoxide	NL	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Methoxychlor	NL	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19
Toxaphene	NL	< 200	< 1.8	< 21	< 2.1	< 2.3	< 2.7	< 2.0	< 2.0	< 1.9	< 23	< 2.2	< 19

#### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

- B Analyte was detected in the associated Method Blank
- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
- D10 Dilution required due to sample color.
- QFL Florisil clean-up (EPA 3620) performed on extract.
- QSU Sulfur (EPA 3660) clean-up performed on extract.



# Table 3C: Surface Soil Samples Pesticides Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Part 375	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22
Date	Unrestricted	5/15/09	05/15/09	05/15/09	05/15/09	05/15/09	05/15/09	5/15/09	5/15/09	5/15/09	5/15/09
Matrix	Use	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
4,4'-DDT	3.3	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
4-4'-DDD	3.3	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
4-4'-DDE	3.3	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Aldrin	5	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
alpha-BHC	20	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
alpha-Chlordane	94	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
beta-BHC	36	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Chlordane	NL	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
delta-BHC	40	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Dieldrin	5	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Endosulfan I	2400	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Endosulfan II	2400	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Endosulfan Sulfate	2400	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Endrin	14	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Endrin aldehyde	NL	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Endrin Ketone	NL	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
gamma BHC (Lindane)	100	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
gamma- Chlorodane	NL	< 22	< 21	< 23	< 24	< 24	< 27	5.3D,J	12QFL,J	< 25	< 24
Heptachlor	42	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Heptachlor epoxide	NL	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Methoxychlor	NL	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Toxaphene	NL	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24

#### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

- B Analyte was detected in the associated Method Blank
- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
- D10 Dilution required due to sample color.
- QFL Florisil clean-up (EPA 3620) performed on extract.
- QSU Sulfur (EPA 3660) clean-up performed on extract.



#### Table 3D: Surface Soil Samples Polychlorinated Biphenyls Riverview Industrial Center 5335 River Road Tonawanda, Ny

Soil Sample ID	Part 375 Unrestricted Use	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11
Date		05/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Aroclor-1016	100	< 20	< 18	< 21	< 21	< 23	< 27	< 20	< 20	< 19	< 23	< 22
Aroclor-1221	100	< 20	< 18	< 21	< 21	< 23	< 27	< 20	< 20	< 19	< 23	< 22
Aroclor-1232	100	< 20	< 18	< 21	< 21	< 23	< 27	< 20	< 20	< 19	< 23	< 22
Aroclor-1242	100	< 20	< 18	< 21	< 21	< 23	< 27	< 20	< 20	< 19	< 23	< 22
Aroclor-1248	100	< 20	< 18	< 21	< 21	< 23	< 27	< 20	< 20	< 19	< 23	< 22
Aroclor-1254	100	< 20	< 18	< 21	< 21	< 23	< 27	< 20	< 20	< 19	< 23	< 22
Aroclor-1260	100	< 20	100	< 21	< 21	< 23	< 27	< 20	< 20	< 19	35	< 22

#### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)



Table 3D: Surface Soil Samples Polychlorinated Biphenyls Riverview Industrial Center 5335 River Road Tonawanda, Ny

Soil Sample ID	D	SS-12	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22
Date	Part 375 Unrestricted Use	5/15/09	5/15/09	05/15/09	05/15/09	05/15/09	05/15/09	05/15/09	5/15/09	5/15/09	5/15/09	5/15/09
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Aroclor-1016	100	< 19	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Aroclor-1221	100	< 19	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Aroclor-1232	100	< 19	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Aroclor-1242	100	< 19	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Aroclor-1248	100	< 19	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Aroclor-1254	100	< 19	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24
Aroclor-1260	100	< 19	< 22	< 21	< 23	< 24	< 24	< 27	< 25	< 25	< 25	< 24

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)



# Table 3E: Surface Soil Samples Metals Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Part 375	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12
Date	Unrestrict	05/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09	5/15/09
Matrix	ed Use	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Aluminum (mg/kg)	NL	8890	10000	5340	13700	8400	17100	10000	11100	16300	11100	12700	7920
Antimony (mg/kg)	NL	< 17.7	< 15.3	0.7J	< 20.4	< 20.3	< 23.7	< 19.0	< 19.7	< 19.2	< 19.7	< 21.1	< 17.5
Arsenic (mg/kg)	13	2.6	4.0	3.7	4.9	4.6	6.4	2.9	3.3	4.1	3.8	4.1	2.1J
Barium (mg/kg)	350	70.6	83.9	46.3	111	221	130	83.4	87.0	123	97.4	96.2	61.3
Beryllium (mg/kg)	7.2	0.451	0.520	0.952	1.01	0.671	0.859	0.542	0.553	0.767	0.997	0.633	0.402
Cadmium (mg/kg)	2.5	0.201J	0.211	0.646	0.461	0.182J	0.106J	< 0.253	0.071J	< 0.256	1.24	0.191J	0.056J
Calcium (mg/kg)	NL	33100	17700	241000D	50800	44400	33300	8700	39000	4170	122000D	34000	26800
Chromium (mg/kg)	NL	11.9	14.3	10.5	19.8	17.6	23.5	13.4	17.3	21.0	15.1	17.4	11.3
Cobalt (mg/kg)	NL	8.72	8.31	3.24	9.98	10.8	12.3	7.57	9.18	12.5	5.91	10.3	6.57
Copper (mg/kg)	50	120	16.2	14.8	29.0	22.7	24.3	14.9	24.9	20.1	16.9	18.6	13.4
Iron (mg/kg)	NL	13200	16500	8720	21700	32700	28400	16000	19300	25000	13400	21100	12100
Lead (mg/kg)	63	22.9	39.6	21.0	33.4	75.9	26.2	17.8	18.3	12.1	24.1	16.6	11.3
Magnesium (mg/kg)	NL	12600	7110	10700	14600	22300	13400	5520	12000	6210	10900	12000	9270
Manganese (mg/kg)	1600	385	492	386	534	403	737	313	487	737	668	652	322
Mercury (mg/kg)	0.18	0.0131J	0.0284	0.0234	0.0229J	0.0296	0.0389	0.0224J	0.0285	0.0124J	0.0550	0.0152J	0.0153J
Nickel (mg/kg)	30	17.2	17.7	11.9	24.9	17.6	28.9	15.7	21.8	30.8	15.9	22.5	15.3
Potassium (mg/kg)	NL	1540	1350	949	2690	1040	2670	1250	1890	1730	1670	1820	1410
Selenium (mg/kg)	3.9	< 4.7	< 4.1	< 5.2	< 5.5	< 5.4	< 6.3	< 5.1	< 5.2	< 5.1	< 5.3	< 5.6	< 4.7
Silver (mg/kg)	2	< 0.589	< 0.511	< 0.651	< 0.682	< 0.678	< 0.790	< 0.632	< 0.655	< 0.640	< 0.657	< 0.702	< 0.584
Sodium (mg/kg)	NL	129J	103J	191	220	129J	170J	119J	151J	85.1J	224	132J	143J
Thallium (mg/kg)	NL	< 7.1	< 6.1	< 7.8	0.4J	< 8.1	< 9.5	0.6J	< 7.9	< 7.7	< 7.9	< 8.4	< 7.0
Vanadium (mg/kg)	NL	15.2B	19.4B	8.79B	25.2B	15.8B	31.6B	20.0B	20.9B	28.3B	16.4B	24.2B	15.5B
Zinc (mg/kg)	109	212B	112B	71.9B	95.7B	85.7B	99.7B	64.6B	90.8B	69.1B	79.4B	86.0B	47.5B

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per kilogram (mg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

B - Analyte was detected in the associated Method Blank

D08 - Dilution required due to high concentration of target analyte(s)

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Me

Concentrations within this range are estimated.



# Table 3E: Surface Soil Samples Metals Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Part 375	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22
Date	Unrestrict	5/15/09	05/15/09	05/15/09	05/15/09	05/15/09	05/15/09	5/15/09	5/15/09	5/15/09	5/15/09
Matrix	ed Use	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Aluminum (mg/kg)	NL	14600	12400	15900	11500	14600	19800	17600	19800	10600	11400
Antimony (mg/kg)	NL	< 21.2	< 17.7	< 22.1	< 20.3	< 22.4	< 24.5	< 23.3	< 23.6	< 22.8	< 22.6
Arsenic (mg/kg)	13	4.7	5.3	11.2	5.8	6.0	7.3	9.0	13.3	6.7B	6.5B
Barium (mg/kg)	350	119	104	68.0	62.0	105	71.4	81.1	103	61.8	64.3
Beryllium (mg/kg)	7.2	0.736	0.809	0.827	0.552	0.765	0.877	0.867	1.16	0.363	0.466
Cadmium (mg/kg)	2.5	< 0.283	0.245	< 0.294	0.216J	0.543	< 0.327	< 0.311	0.195J	0.426	0.502
Calcium (mg/kg)	NL	45400	11900	2460	2070	3230	522	325	888	1960	1880
Chromium (mg/kg)	NL	20.0	20.5	18.2	14.2	18.0	24.1	23.2	24.1	12.9	14.4
Cobalt (mg/kg)	NL	11.3	7.78	11.4	8.00	9.71	17.2	9.89	42.4	6.06	7.84
Copper (mg/kg)	50	20.8	20.4	14.2	13.2	15.6	14.5	13.1	15.5	12.8B	14.1B
Iron (mg/kg)	NL	23200	23700	32400	15900	20800	33700	42200	44800	14400	16100
Lead (mg/kg)	63	23.3	34.4	29.7	36.0	34.5	25.9	26.0	53.6	39.2B	38.6B
Magnesium (mg/kg)	NL	13400	5020	4320	2820	3310	4520	2850	2990	2350	2850
Manganese (mg/kg)	1600	622	776	390	418	1290	1420	709	7510D	400	436
Mercury (mg/kg)	0.18	0.0168J	0.0667	0.0241J	0.0744	0.0974	0.0635	0.121	0.120	0.0926	0.0696
Nickel (mg/kg)	30	25.4	19.3	16.5	17.0	23.9	21.0	18.9	21.8	15.7	17.0
Potassium (mg/kg)	NL	2130	1310	1090	993	1310	1510	1350	1210	806	1000
Selenium (mg/kg)	3.9	< 5.7	< 4.7	< 5.9	< 5.4	< 6.0	< 6.5	0.9J	< 6.3	1.4J	< 6.0
Silver (mg/kg)	2	< 0.707	< 0.590	< 0.736	0.142J	< 0.748	< 0.818	0.126J	0.209J	< 0.760	< 0.754
Sodium (mg/kg)	NL	139J	173	152J	68.9J	86.3J	66.2J	101J	83.0J	65.0J	57.9J
Thallium (mg/kg)	NL	< 8.5	< 7.1	1.0J	< 8.1	< 9.0	< 9.8	< 9.3	1.6J	0.8J	0.9J
Vanadium (mg/kg)	NL	27.5B	20.7B	39.9B	24.4B	30.0B	40.7B	55.3B	64.1B	22.9	24.6
Zinc (mg/kg)	109	82.3B	84.1B	63.9B	90.1B	119B	96.0B	89.3B	128B	85.2B	94.4B

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per kilogram (mg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

B - Analyte was detected in the associated Method Blank

D08 - Dilution required due to high concentration of target analyte(s)

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Me

Concentrations within this range are estimated.



## **Table 4A: Surface Water Samples Volatile Organic Compounds Riverview Industrial Center** 5335 River Road Tonawanda, NY

Soil Sample ID	TOGs	SW-1	SW-2	SW-3	SW-4
Date	1.1.1	05/18/09	05/18/09	5/18/09	5/29/09
Time	Water Guidance Values for Ambient	10:45	11:10	11:20	8:00
Matrix	and Class D	Water	Water	Water	Water
2-Butanone	50	< 5.0	< 20	< 5.0	< 5.0
2-Methylnapthalene	42	< 1.0	< 4.0	< 1.0	< 1.0
4-Isopropyltoluene	5	< 1.0	< 4.0	< 1.0	< 1.0
4-Methyl-2Pentadone	NL	< 5.0	< 20	< 5.0	< 5.0
Acetone	50	< 1.0	8.8 D03,J	2.7 J	2.3 J
Benzene	10	< 1.0	< 4.0	< 1.0	< 1.0
Carbon disulfide	NL	< 1.0	< 4.0	< 1.0	< 1.0
Chlorobenzene	400	< 1.0	< 4.0	< 1.0	< 1.0
Cyclohexane	NL	< 1.0	< 4.0	< 1.0	< 1.0
Ethylbenzene	5	< 1.0	< 4.0	< 1.0	< 1.0
Isopropylbenzene	23	< 1.0	< 4.0	< 1.0	< 1.0
Methylene Chloride	200	< 1.0	< 4.0	< 1.0	< 1.0
Methylcyclohexane	NL	< 1.0	< 4.0	< 1.0	< 1.0
MtBE	NL	< 1.0	< 4.0	< 1.0	< 1.0
Naphthalene	10	< 1.0	< 4.0	< 1.0	< 1.0
n-Butylbenzene	5	< 1.0	< 4.0	< 1.0	< 1.0
n-propylbenzene	5	< 1.0	< 4.0	< 1.0	< 1.0
sec-Butylbenzene	5	< 1.0	< 4.0	< 1.0	< 1.0
tert-Butylbenzene	5	< 1.0	< 4.0	< 1.0	< 1.0
Toluene	480	< 1.0	2.2 D03,J	< 1.0	< 1.0
Xylenes, Total	5	< 2.0	< 8.0	< 2.0	< 2.0

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in micrograms per Liter (µg/L).

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations

D03 - Dilution required due to excessive foaming



## **Table 4B: Surface Water Samples Semi-Volatile Organic Compounds Riverview Industrial Center** 5335 River Road Tonawanda, NY

Soil Sample ID	TOGs	SW-1	SW-2	SW-3	SW-4
	1.1.1				
Date	Water Guidance	05/18/09	05/18/09	5/18/09	5/29/09
	Values for	40.45	44.40	44.00	2.00
Sample interval (feet)	Ambient and	10:45	11:10	11:20	8:00
Matrix	Class D	Water	Water	Water	Water
2,4 Di MethylPhenol	1000	< 10	< 12	< 9.7	< 12
2-Methylnaphthalene	42	< 10	< 12	< 9.7	< 12
4-Nitrophenol	NL	< 10	< 12	< 9.7	< 12
Acenaphthene	48	< 10	< 12	< 9.7	< 12
Acetophenone	NL	< 10	< 12	< 9.7	< 12
Anthracene	35	< 10	< 12	< 9.7	< 12
Benzaldehyde	NL	< 50	< 62	< 48	< 62
Benzo(a)anthracene	0.23	< 10	< 12	< 9.7	< 12
Benzo(a)pyrene	0.0012	< 10	< 12	< 9.7	< 12
Benzo(b)fluoranthene	0.002	< 10	< 12	< 9.7	< 12
Benzo(g,h,i)perylene	NL	< 10	< 12	< 9.7	< 12
Benzo(k)fluoranthene	0.002	< 10	< 12	< 9.7	< 12
1,1' Biphenyl	5	< 10	< 12	< 9.7	< 12
Bis-(2 chloroethoxy) methane	5	< 10	< 12	< 9.7	< 12
Bis-(2 Ethylhexyl) phthalate	5	< 10	< 12	< 9.7	< 12
Carbazol	NL	< 5.0	< 6.2	< 4.8	< 6.2
Chrysene	0.002	< 10	< 12	< 9.7	< 12
Dibenzo(a,h)anthracene	NL	< 10	< 12	< 9.7	< 12
Dibenzofuran	NL	< 10	< 12	< 9.7	< 12
Diethyl phthalate	50	< 10	< 12	< 9.7	< 12
Di-n-butyl-phthalate	50	< 10	< 12	< 9.7	< 12
Di-n-octyl phthalate	50	< 10	< 12	< 9.7	< 12
Fluoranthene	50	< 10	< 12	< 9.7	< 12
Fluorene	4.8	< 10	< 12	< 9.7	< 12
Indeno(1,2,3-cd)pyrene	0.002	< 10	< 12	< 9.7	< 12
Naphthalene	110	< 10	< 12	< 9.7	< 12
N-nitrosdiphenylamine	50	< 10	< 12	< 9.7	< 12
Phenanthrene	45	< 10	< 12	< 9.7	< 12
Pyrene	42	< 10	< 12	< 9.7	< 12

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in micrograms per Liter ( $\mu$ g/L). NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations



# Table 4C: Surface Water Samples Pesticides Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	TOGs	SW-1	SW-2	SW-3	SW-4
Date	1.1.1	05/18/09	5/21/09	5/21/09	5/29/09
Depth (ft)	Water Guidance Values for Ambient	10:45	8:45	8:55	8:00
Matrix	and Class D	Water	Water	Water	Water
4,4'-DDT	1x10-5	< 0.048	< 0.048	< 0.049	< 0.057
4-4'-DDD	1x10-5	< 0.048	< 0.048	< 0.049	< 0.057
4-4'-DDE	1x10-5	< 0.048	< 0.048	< 0.049	< 0.057
Aldrin	0.001	< 0.048	< 0.048	< 0.049	< 0.057
alpha-BHC	NL	< 0.048	< 0.048	< 0.049	< 0.057
alpha-Chlordane	NL	< 0.048	< 0.048	< 0.049	< 0.057
beta-BHC	NL	< 0.048	< 0.048	< 0.049	< 0.057
Chlordane	2x10-5	< 0.48	< 0.48	< 0.49	< 0.57
delta-BHC	NL	< 0.048	< 0.048	< 0.049	0.042J
Dieldrin	0.001	< 0.048	< 0.048	< 0.049	< 0.057
Endosulfan I	0.22	< 0.048	< 0.048	< 0.049	< 0.057
Endosulfan II	0.22	< 0.048	< 0.048	< 0.049	< 0.057
Endosulfan Sulfate	0.22	< 0.048	< 0.048	< 0.049	< 0.057
Endrin	0.002	< 0.048	< 0.048	< 0.049	< 0.057
Endrin aldehyde	5	< 0.048	< 0.048	< 0.049	< 0.057
Endrin Ketone	5	< 0.048	< 0.048	< 0.049	< 0.057
gamma BHC (Lindane)	ND	< 0.048	0.028J	0.027J	< 0.057
gamma- Chlorodane	5	< 0.048	< 0.048	0.044J	0.032J
Heptachlor	2x10-4	< 0.048	< 0.048	< 0.049	< 0.057
Heptachlor epoxide	3x10-4	< 0.048	< 0.048	< 0.049	< 0.057
Methoxychlor	35	< 0.048	< 0.048	< 0.049	< 0.057
Toxaphene	6x10-6	< 0.48	< 0.48	< 0.49	< 0.57

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in micrograms per Liter (µg/L).

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations



# Table 4D: Surface Water Samples Polychlorinated Biphenyls Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	TOGs 1.1.1	SW-1	SW-2	SW-3	SW-4
Date	Water Guidance	05/18/09	05/18/09	5/18/09	5/29/09
Depth (ft)	Values for Ambient	10:45	11:10	11:20	8:00
Matrix	and Class D	Water	Water	Water	Water
Aroclor-1016	1x10-6	< 0.52	< 0.67	< 0.48	< 0.57
Aroclor-1221	1x10-6	< 0.52	< 0.67	< 0.48	< 0.57
Aroclor-1232	1x10-6	< 0.52	< 0.67	< 0.48	< 0.57
Aroclor-1242	1x10-6	< 0.52	< 0.67	< 0.48	< 0.57
Aroclor-1248	1x10-6	< 0.52	< 0.67	< 0.48	< 0.57
Aroclor-1254	1x10-6	< 0.52	< 0.67	< 0.48	< 0.57
Aroclor-1260	1x10-6	< 0.52	< 0.67	< 0.48	< 0.57

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in micrograms per Liter ( $\mu$ g/L).

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations



## Table 4E: Surface Water Samples Metals Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	TOGs	SW-1	SW-2	SW-3	SW-4
Date	1.1.1 Water Guidance	05/18/09	05/18/09	5/18/09	5/29/09
Depth (ft)	Values for	10:45	11:10	11:20	8:00
Matrix	Ambient and Class D	Water	Water	Water	Water
Aluminum	0.1	1.24	0.641	0.454	1.16
Antimony	0.003	< 0.0200	< 0.0200	< 0.0200	< 0.0200
Arsenic	0.34	< 0.0100	< 0.0100	< 0.0100	< 0.0100
Barium	1	0.0536	0.0428	0.582	0.187
Beryllium	0.003	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Cadmium	0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Calcium	NL	44.4	50.1	33.1	79.1
Chromium	0.05	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Cobalt	NL	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Copper	1	< 0.0100	< 0.0100	< 0.0100	< 0.0100
Iron	0.3	1.21	1.41	0.733	1.58
Lead	0.05	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Magnesium	35	14.0	11.9	13.6	59.6
Manganese	0.6	0.0829	0.261	0.931	0.334
Mercury	0.0000007	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Nickel	0.2	< 0.0100	< 0.0100	< 0.0100	< 0.0100
Potassium	NL	2.26	3.06	1.90	3.45
Selenium	0.02	< 0.0150	< 0.0150	< 0.0150	< 0.0150
Silver	0.1	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Sodium	NL	16.4	10.3	39.7	110
Vanadium	0.19	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Thallium	0.02	< 0.0200	< 0.0200	< 0.0200	< 0.0200
Zinc	5	< 0.0100	< 0.0100	0.0109	0.0206

### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in milligrams per Liter (mg/L).

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations



# Table 5A: Soil Boring & Test Pit Samples Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID		SB-1 1-3	SB-2	SB-5 0-2	SB-5	SB-6 1-4	SB-7	SB-8 0-4	SB-8D 5-9	SB-9 1-4	SB-12 1-3
-	-						-		22 32 37		
Date	Part 375	5/4/09	5/4/09	5/6/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09
Depth (ft)	Unrestricted Use	1-3'	0-2'	0-2'	1-3'	1-4'	1-3'	0-4'	5-9'	1-4'	1-3'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
2-Butanone (μg/kg)	50	< 31	< 32	< 41	< 29	< 32	< 32	< 150	< 32	< 30	15J
2-Methylnapthalene (µg/kg)	42	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
4-Isopropyltoluene (µg/kg)	5	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
4-Methyl-2 pentanone (μg/kg)	NL	< 31	<32	< 41	< 29	< 32	< 32	< 150	< 32	< 30	< 32
Acetone (µg/kg)	50	< 6.2	48	< 8.1	140	140	55	95DJ	88	66	240
Benzene (µg/kg)	10	< 6.2	< 6.1	< 8.1	< 5.9	1.8J	19	< 30	< 6.4	< 6.2	< 6.3
Carbon disulfide (µg/kg)	NL	< 6.2	< 6.1	< 8.1	2.0J	2.4J	< 6.5	8.1DJ	1.8J	< 6.2	4.1J
Chlorobenzene (µg/kg)	400	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
Cyclohexane (µg/kg)	NL	< 6.2	< 6.1	< 8.1	< 5.9	25	3.6J	< 30	< 6.4	< 6.2	< 6.3
Ethylbenzene (µg/kg)	5	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	1.6J	< 30	< 6.4	< 6.2	< 6.3
Isopropylbenzene (µg/kg)	23	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	4.0J	< 30	< 6.4	< 6.2	< 6.3
Methylene Chloride (µg/kg)	200	< 6.2	< 6.1	< 8.1	3.4J	< 6.4	< 6.5	< 30	< 6.4	< 6.2	3.7J
Methylcyclohexane (µg/kg)	NL	< 6.2	< 6.1	< 8.1	< 5.9	11	6.2J	< 30	< 6.4	< 6.2	< 6.3
$MtBE\ (\mu g/kg)$	NL	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
Naphthalene (µg/kg)	10	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
n-Butylbenzene (µg/kg)	5	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
n-propylbenzene (μg/kg)	5	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
sec-Butylbenzene (µg/kg)	5	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
tert-Butylbenzene (µg/kg)	5	< 6.2	< 6.1	< 8.1	< 5.9	< 6.4	< 6.5	< 30	< 6.4	< 6.2	< 6.3
Toluene (µg/kg)	480	< 6.2	< 6.1	< 8.1	< 5.9	1.5J	1.4J	< 30	< 6.4	< 6.2	< 6.3
Xylenes, Total (μg/kg)	5	< 12	< 12	< 18	< 12	5.5J	1.9J	< 59	< 13	< 12	< 13

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in micrograms per kilogram (µg/kg).

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

J -Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.



Table 5A: Soil Boring & Test Pit Samples
Volatile Organic Compounds
Riverview Industrial Center
5335 River Road
Tonawanda, NY

Soil Sample ID		CD 12.1.5	CD 14 1 4	CD 15 1 4	CD 161 4	CD 17 1 4	CD 15 1 5	CD 10 1 4	D 10.2	D 1 4 6	D 2 0 2	D 2 4 7	D.7.1.4
Son Sample 1D		SB-13 1-5	SB-14 1-4	SB-15 1-4	SB-16 1-4	SB-17 1-4	SB-17 1-5	SB-18 1-4	B-1 0-2	B-1 4-6	B-2 0-2	B-2 4-7	B-7 1-4
Date	Part 375	5/4/09	5/4/09	5/4/09	5/5/09	5/5/09	5/5/09	5/5/09	5/6/09	5/5/09	5/6/09	5/5/09	5/6/09
Depth (ft)	Unrestricted Use	1-5'	1-4'	1-4'	1-4'	1-4'	1-5'	1-4'	0-2'	4-6'	0-2'	4-7'	1-4'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
2-Butanone (µg/kg)	50	< 32	28J	< 31	< 27	43	< 130	< 140	< 32	< 32	< 33	< 30	< 33
2-Methylnapthalene (µg/kg)	42	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
4-Isopropyltoluene (µg/kg)	5	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
4-Methyl-2 pentanone (µg/kg)	NL	< 32	< 29	< 31	< 27	< 32	< 130	< 140	< 32	< 32	< 33	< 30	< 33
Acetone (µg/kg)	50	53	240	48	56	240	< 27	260D	85	80	< 6.7	29J	< 6.6
Benzene (µg/kg)	10	< 6.3	< 5.8	< 6.2	5.4	4.1J	< 27	640D	< 6.5	11	< 6.7	< 5.9	< 6.6
Carbon disulfide (µg/kg)	NL	2.5J	2.1J	2.6J	2.1J	1.7J	< 27	460D,J	< 6.5	< 6.4	< 6.7	1.4J	< 6.6
Chlorobenzene (µg/kg)	400	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
Cyclohexane (µg/kg)	NL	< 6.3	< 5.8	4.7J	40	82	8.0DJ	6100D	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
Ethylbenzene (µg/kg)	5	< 6.3	< 5.8	< 6.2	< 5.4	1.6J	140D	1700D	< 6.5	170D	< 6.7	< 5.9	< 6.6
Isopropylbenzene (µg/kg)	23	< 6.3	< 5.8	< 6.2	11	17	45D	1100D	< 6.5	38D	< 6.7	< 5.9	< 6.6
Methylene Chloride (µg/kg)	200	5.4J	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
Methylcyclohexane (µg/kg)	NL	< 6.3	< 5.8	3.7J	63	160	14DJ	18000D	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
$MtBE(\mu g/kg)$	NL	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
Naphthalene (µg/kg)	10	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
n-Butylbenzene (µg/kg)	5	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
n-propylbenzene (µg/kg)	5	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
sec-Butylbenzene (µg/kg)	5	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
tert-Butylbenzene (µg/kg)	5	< 6.3	< 5.8	< 6.2	< 5.4	< 6.5	< 27	< 27	< 6.5	< 6.4	< 6.7	< 5.9	< 6.6
Toluene (µg/kg)	480	< 6.3	< 5.8	< 6.2	1.7B,J	2.6B,J	< 27	34D	< 6.5	2.8J	< 6.7	< 5.9	< 6.6
Xylenes, Total (μg/kg)	5	< 13	< 12	4.5J	26	10 <b>J</b>	150D	2900D	< 13	510D	< 13	150	< 13

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in micrograms per kilogram (µg/kg).

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

J -Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.



Table 5A: Soil Boring & Test Pit Samples
Volatile Organic Compounds
Riverview Industrial Center
5335 River Road
Tonawanda, NY

Soil Sample ID		B-13 0-4	B-15 0-4	MW-005 8-10	MW-5-9	MW-8 14-16	TP-3	TP-4	WS4P*	TP-6	TP-6B	TP-10	TP-13	TP-19	TP-21
Date	Part 375	5/5/09	5/6/09	5/8/09	5/11/09	5/13/09	5/11/09	5/11/09	5/14/09	5/11/09	5/11/09	5/12/09	5/12/09	5/14/09	5/14/09
Depth (ft)	Unrestricted Use	0-4'	0-4'	8-10'	8-10'	14-16'	NA	5-6'		5-7'	12-14'	6-10'	0-2'	4-6'	1-4'
Matrix	] [	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Water	Solid	Solid	Solid	Solid	Solid	Solid
2-Butanone (µg/kg)	50	< 31	< 34	< 28	< 27	< 30	< 29	< 31	69D	< 35	< 26	12J	< 30	490D,J,B	< 6900
2-Methylnapthalene (µg/kg)	42	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
4-Isopropyltoluene (µg/kg)	5	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
4-Methyl-2 pentanone (μg/kg)	NL	< 31	< 34	< 28	< 27	< 30	< 29	< 31	< 5.0	< 35	< 26	6.3J	< 30	< 31	< 6900
Acetone (µg/kg)	50	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	120	100	60D	< 7.0	26	95	< 6.2	110	< 1400
Benzene (µg/kg)	10	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	1.3J	< 6.2	350D	2000D	< 5.3	< 5.7	< 6.2	< 6.1	820D,J
Carbon disulfide (µg/kg)	NL	< 6.2	< 6.8	< 5.7	< 5.4	1.2J	2.8J	1.5J	< 1.0	1.9J	< 5.3	< 5.7	< 6.2	4.8J	< 1400
Chlorobenzene (µg/kg)	400	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	1.3J	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	15	< 6.1	390D,J
Cyclohexane (µg/kg)	NL	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	9.7	< 6.2	71D	51000D	< 5.3	30	< 6.2	1700D	23000D
Ethylbenzene (µg/kg)	5	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	340D	< 6.2	360D	5900D	< 5.3	5.1J	< 6.2	8.5	14000D
Isopropylbenzene (µg/kg)	23	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	110D	< 6.2	37D	6400D	< 5.3	6	< 6.2	410D	2500D
Methylene Chloride (µg/kg)	200	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	6.5	< 1400
Methylcyclohexane (μg/kg)	NL	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	220D	< 6.2	61D	45000D	< 5.3	110	< 6.2	2700D	19000D
MtBE (µg/kg)	NL	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
Naphthalene (µg/kg)	10	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
n-Butylbenzene (µg/kg)	5	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
n-propylbenzene (µg/kg)	5	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
sec-Butylbenzene (µg/kg)	5	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
tert-Butylbenzene (µg/kg)	5	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	< 5.7	< 6.2	< 1.0	< 7.0	< 5.3	< 5.7	< 6.2	< 6.1	< 1400
Toluene (µg/kg)	480	< 6.2	< 6.8	< 5.7	< 5.4	< 5.9	77D,J	< 6.2	7.8D	21B	< 5.3	< 5.7	62B	1.2J	4000D
Xylenes, Total (μg/kg)	5	< 12	< 14	< 11	< 11	< 12	4200D	< 6.2	490D	770D,J	< 11	66	1.7J	<b>10J</b>	160000

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Analytes only detected in surficial soil samples are listed.

All units are reported in micrograms per kilogram (µg/kg).

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

J -Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.



## Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Semi-Volatile Organic Compounds Table 5B: Soil Boring & Test Pit Samples

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Soil Sample ID	_	SB-1 1-3	SB-2	SB-5 0-2	SB-5	SB-6 1-4	SB-7	SB-8 0-4	SB-8D 5-9	SB-9 1-4	SB-12 1-3
Date	Part 375 Unrestricted Use	5/4/09	05/05/09	5/6/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09
Sample interval (feet)		1-3'	1-2'	0-2'	1-3'	1-4'	1-3'	0-4'	5-9'	1-4'	1-3'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
2,4 Di MethylPhenol	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
2-Methylphenol	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
2-Methylnaphthalene	NL	< 210	< 210	32J	< 200	< 220	21H,J	9.2H,J	< 220	< 210	< 210
4-Chlorophenyl phenyl ether	NL	< 210	< 210	55J	< 200	< 220	< 220	< 220	< 220	< 210	< 210
4-Methylphenol	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
4-Nitroaniline	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
4-Nitrophenol	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Acenaphthene	20000	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Acenapthylene	100000	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Acetophenone	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Anthracene	100000	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Benzaldehyde	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Benzo(a)anthracene	1000	< 210	< 210	30J	13H,J	< 220	< 220	< 220	< 220	< 210	< 210
Benzo(a)pyrene	1000	11H,J	< 210	29Ј	< 200	< 220	< 220	13H,J	< 220	< 210	< 210
Benzo(b)fluoranthene	1000	15H,J	< 210	36J	< 200	< 220	15H,J	< 220	< 220	< 210	< 210
Benzo(g,h,i)perylene	100000	10H,J	< 210	25J	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Benzo(k)fluoranthene	800	13H,J	< 210	< 290	< 200	< 220	17H,J	< 220	< 220	< 210	< 210
Biphenyl	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Bis-(2 chloroethoxy) methane	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Bis-(2 Ethylhexyl) phthalate	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Butyl benzyl phthalate	NL	< 210	< 210	90J	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Carbazole	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Chrysene	1000	16H,J	8.9H,J	330	9.5H,J	8.9J	< 220	< 220	< 220	< 210	< 210
Dibenzo(a,h)anthracene	330	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Dibenzofuran	NL	< 210	< 210	< 290	< 200	< 220	< 220	13H,J	< 220	< 210	< 210
Diethyl phthalate	NL	< 210	< 210	53J	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Di-n-butyl-phthalate	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Di-n-octyl-phthalate	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Fluoranthene	100,000	9.1H,J	< 210	66J	9.9H,J	< 220	< 220	< 220	< 220	< 210	< 210
Fluorene	100000	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Indeno(1,2,3-cd)pyrene	30000	< 210	< 210	19J	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Naphthalene	500	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
N-Nitrosodi-n-propylamine	12000	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
N-Nitrosodiphenylamine	NL	< 210	< 210	< 290	< 200	< 220	< 220	< 220	< 220	< 210	< 210
Phenanthrene	100000	12H,J	< 210	32J	8.7H,J	< 220	< 220	< 220	< 220	< 210	< 210
Pyrene	100000	< 210	< 210	46J	< 200	< 220	< 220	< 220	< 220	< 210	< 210

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)
NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

- H Sample was extracted past holding time, but analyzed within analysis holding time.
- D Dilution requirted on sample for analysis.



## Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Semi-Volatile Organic Compounds Table 5B: Soil Boring & Test Pit Samples

Soil Sample ID		GD 42.4.5	an at a a	GD 454 4	an aca a	GD 151 1	an 151 5	GD 404.4	GD 44.4	7.100	7.446		2015	7.514
Date		SB-13 1-5	SB-14 1-4	SB-15 1-4	SB-16 1-4	SB-17 1-4	SB-17 1-5	SB-18 1-4	SB-22 4-6	B-1 0-2	B-1 4-6	B-2 0-2	B-2 4-7	B-7 1-4
	Part 375 Unrestricted Use	5/4/09	5/4/09	5/4/09	5/5/09	5/5/2009	5/5/2009	5/5/2009	5/5/2009	05/06/09	05/05/09	5/6/09	5/5/2009	5/6/2009
Sample interval (feet) Matrix		1-5'	1-4'	1-4'	1-4'	1-4'	1-5'	1-4'	4-6'	0-2'	4-6'	0-2'	4-7'	1-4'
	 	Solid	Solid	Solid	Solid	Solid	Solid							
2,4 Di MethylPhenol	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
2-Methylphenol	NL	< 220	< 200	< 210	< 1900	< 220	< 210	150H,D,J	< 210	< 230	< 1100	< 220	< 210	< 230
2-Methylnaphthalene	NL	< 220	< 200	42J	58000D	1900	2000H	6700D	< 210	< 230	240H,D,J	< 220	520H	< 230
4-Chlorophenyl phenyl ether	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
4-Methylphenol	NL	< 220	< 200	< 210	< 1900	< 220	< 210	200H,D,J	< 210	< 230	< 1100	< 220	< 210	< 230
4-Nitroaniline	NL	< 220	< 200	< 210	< 1900	< 220	110H,J	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
4-Nitrophenol	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	120H,J	< 230
Acenaphthene	20000	< 220	< 200	< 210	5500D	100J	110H,J	990H,D,J	< 210	< 230	44D,J	< 220	< 210	< 230
Acenapthylene	100000	< 220	< 200	< 210	< 1900	< 220	< 210	190D,J	< 210	< 230	< 1100	< 220	< 210	< 230
Acetophenone	NL	< 220	< 200	< 210	< 1900	47J	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Anthracene	100000	< 220	< 200	< 210	4300D	27Ј	62H,J	160D,J	< 210	< 230	44D,J	< 220	< 210	< 230
Benzaldehyde	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Benzo(a)anthracene	1000	< 220	< 200	< 210	< 1900	43J	55H,J	350H,D,J	<210	24J	93H,D,J	14J	19H,J	18J
Benzo(a)pyrene	1000	< 220	< 200	< 210	1800D,J	38J	56H,J	< 2100	< 210	25J	78H,D,J	9.5J	13H,J	< 230
Benzo(b)fluoranthene	1000	< 220	< 200	< 210	690D,J	58J	68H,J	170H,D,J	< 210	25J	< 1100	13Ј	10H,J	< 230
Benzo(g,h,i)perylene	100000	< 220	< 200	< 210	1100D,J	28J	48H,J	160H,D,J	< 210	18J	< 1100	< 220	12H,J	< 230
Benzo(k)fluoranthene	800	< 220	< 200	< 210	< 1900	18J	43H,J	< 2100	9.9H,J	23J	< 1100	< 220	12H,J	< 230
Biphenyl	NL	< 220	< 200	< 210	< 1900	21J	140H,J	870H,D,J	< 210	< 230	< 1100	< 220	< 210	< 230
Bis-(2 chloroethoxy) methane	NL	< 220	< 200	< 210	< 1900	< 220	12H,J	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Bis-(2 Ethylhexyl) phthalate	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Butyl benzyl phthalate	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Carbazole	NL	< 220	< 200	< 210	< 1900	< 220	24H,J	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Chrysene	1000	< 220	< 200	< 210	4900D	42J	69H,J	< 2100	< 210	26J	78H,D,J	< 220	14H,J	9.5J
Dibenzo(a,h)anthracene	330	< 220	< 200	< 210	< 1900	< 220	14H,J	< 2100	< 210	10Ј	< 1100	< 220	< 210	< 230
Dibenzofuran	NL	< 220	< 200	< 210	3700D	96J	< 210	290D,J	< 210	< 230	< 1100	< 220	< 210	< 230
Diethyl phthalate	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Di-n-butyl-phthalate	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
Di-n-octyl-phthalate	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	< 210	17J
Fluoranthene	100,000	< 220	< 200	< 210	2700D	84J	170H,J	270H,D,J	< 210	23Ј	99H,D,J	< 220	18H,J	< 230
Fluorene	100000	< 220	< 200	12J	8300D	150J	190H,J	1500H,D,J	< 210	< 230	68H,D,J	< 220	72H,J	< 230
Indeno(1,2,3-cd)pyrene	30000	< 220	< 200	< 210	250D,J	29Ј	41H,J	< 2100	< 210	17Ј	51H,D,J	< 220	8.4H,J	< 230
Naphthalene	500	< 220	< 200	< 210	< 1900	53Ј	480H	2000Н,Д,Ј	< 210	< 230	120D,J	< 220	< 210	< 230
N-Nitrosodi-n-propylamine	12000	< 220	< 200	< 210	< 1900	< 220	89H,J	< 2100	< 210	< 230	< 1100	< 220	< 210	< 230
N-Nitrosodiphenylamine	NL	< 220	< 200	< 210	< 1900	< 220	< 210	< 2100	< 210	< 230	< 1100	< 220	110H,J,L	< 230
Phenanthrene	100000	< 220	< 200	37J	29000D	260	560H	3500H,D	< 210	21J	310H,D,J	9.1J	190H,J	< 230
Pyrene	100000	< 220	< 200	16J	18000D	81J	150H,J	990H,D,J	< 210	22J	93H,D,J	< 220	24H,J	< 230

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)
NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

- H Sample was extracted past holding time, but analyzed within analysis holding time.
- D Dilution requirted on sample for analysis.



## Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Semi-Volatile Organic Compounds Table 5B: Soil Boring & Test Pit Samples

	1		ı	1				ı	ı	1	1	ı	1	1		
Soil Sample ID		B-13 0-4	B-15 0-4	MW-005 8-10	MW-006 2-4	MW-5-9	MW-8 14-16	TP-3	TP-4	WS4P*	TP-6	TP-6B	TP-10	TP-13	TP-19	TP-21
Date	Part 375	5/5/09	5/6/09	5/8/09	5/8/09	5/11/09	05/13/09	05/11/09	05/11/09	05/14/09	5/11/2009	5/11/2009	5/12/2009	5/12/2009	5/14/2009	5/14/2009
Sample interval (feet)	Unrestricted Use	0-4'	0-4'	8-10'	2-4'	8-10'	14-16'	NA	5-6'		5-7'	12-14'	6-10'	0-2'	4-6'	1-4'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Water	Solid	Solid	Solid	Solid	Solid	Solid
2,4 Di MethylPhenol	NL	< 210	< 230	< 190	< 190	< 190	< 200	1700D,J	< 210	< 100	78000D	< 190	< 200	< 1000	27000D	< 960
2-Methylphenol	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
2-Methylnaphthalene	NL	< 210	< 230	< 190	< 190	< 190	9.0J	< 1900	< 210	490D	< 2300	< 190	230	< 1000	< 1100	46000D
4-Chlorophenyl phenyl ether	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
4-Methylphenol	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
4-Nitroaniline	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
4-Nitrophenol	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Acenaphthene	20000	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	20D,J	1300D,J	< 190	< 200	< 1000	960D,J	3500D
Acenapthylene	100000	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Acetophenone	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Anthracene	100000	< 210	< 230	13Ј	< 190	< 190	< 200	99D,J	< 210	< 100	< 2300	< 190	< 200	< 1000	260D,J	2800D,J
Benzaldehyde	NL	< 210	330N	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Benzo(a)anthracene	1000	< 210	22J	50J	23J	< 190	< 200	140D,J	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	3100D,J
Benzo(a)pyrene	1000	< 210	25J	42J	18J	< 190	< 200	80D,J	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	2200D,J
Benzo(b)fluoranthene	1000	< 210	225	55J	23J	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	2900D,J
Benzo(g,h,i)perylene	100000	< 210	19J	26Ј	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	68D,J	970D,J
Benzo(k)fluoranthene	800	< 210	225	15J	11J	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	830D,J
Biphenyl	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	530D,J	< 190	< 200	< 1000	< 1100	1300D,J
Bis-(2 chloroethoxy) methane	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	700D,L,J
Bis-(2 Ethylhexyl) phthalate	NL	< 210	< 230	< 190	170J	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	1300D	790D,J	500D,J
Butyl benzyl phthalate	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Carbazole	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Chrysene	1000	< 210	22J	48J	16J	< 190	< 200	92D,J	< 210	< 100	< 2300	< 190	< 200	< 1000	230	2700D,J
Dibenzo(a,h)anthracene	330	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	310D,J
Dibenzofuran	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	500D,J	< 190	< 200	< 1000	650D,J	2800D,J
Diethyl phthalate	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Di-n-butyl-phthalate	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Di-n-octyl-phthalate	NL	< 210	13J	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
Fluoranthene	100,000	< 210	265	110Ј	35J	< 190	< 200	180D,J	< 210	< 100	200D,J	< 190	< 200	< 1000	240D,J	9700D
Fluorene	100000	< 210	< 230	< 190	< 190	< 190	< 200	190D,J	< 210	21D,J	760D,J	< 190	< 200	< 1000	1100D	5300D
Indeno(1,2,3-cd)pyrene	30000	< 210	14J	25Ј	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	1100DJ
Naphthalene	500	< 210	< 230	< 190	< 190	< 190	< 200	480D,J	< 210	280D	26000D	< 190	250	< 1000	2000D	26000D
N-Nitrosodi-n-propylamine	12000	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	< 100	< 2300	< 190	< 200	< 1000	< 1100	< 960
N-Nitrosodiphenylamine	NL	< 210	< 230	< 190	< 190	< 190	< 200	< 1900	< 210	76D,L,J	3600D	< 190	< 200	< 1000	< 1100	< 960
Phenanthrene	100000	< 210	21J	88J	21J	< 190	< 200	560D,J	< 210	33D,J	< 2300	< 190	< 200	< 1000	2800D	16000D
Pyrene	100000	< 210	25J	93J	31J	< 190	< 200	200D,J	< 210	< 100	700D,J	< 190	< 200	110D,J	680D,J	7500D

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)
NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

- H Sample was extracted past holding time, but analyzed within analysis holding time.
- D Dilution requirted on sample for analysis.



## Table 5C: Soil Boring & Test Pit Samples Pesticides Riverview Industrial Center 5335 River Road Tonawanda, NY

C-21 C1- ID		GD 444																			
Soil Sample ID	Part 375	SB-1 1-3 5/4/09	SB-2	SB-5 0-2	SB-5	SB-6 1-4	SB-7	SB-8 0-4	SB-8D 5-9	SB-9 1-4	SB-12 1-3	SB-13 1-5	SB-14 1-4	SB-15 1-4	SB-16 1-4	SB-17 1-4	SB-17 1-5	SB-18 1-4	SB-22 4-6	B-1 0-2	B-1 4-6
Date Depth'	Unrestricted Use	1-3'	05/05/09	5/6/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/5/09	5/5/2009	5/5/2009	5/5/2009	5/5/2009	05/06/09	05/05/09
Matrix	Ose	Solid	1-2' Solid	0-2' Solid	1-3' Solid	1-4' Solid	1-3' Solid	0-4' Solid	5-9' Solid	1-4' Solid	1-3' Solid	1-5' Solid	1-4' Solid	1-4' Solid	1-4' Solid	1-4' Solid	1-5' Solid	1-4' Solid	4-6' Solid	0-2' Solid	4-6' Solid
MULIA		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
4,4'-DDT	3.3	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
4-4'-DDD	3.3	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
4-4'-DDE	3.3	< 2.1	< 2.1	2.2J	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	1.4J
Aldrin	5	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
alpha-BHC	20	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	1.3J	1.5J	1.5J	< 2.2	< 2.1
alpha-Chlordane	94	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	<2.1	< 2.1	< 2.1	< 2.2	< 2.1
beta-BHC	36	< 2.1	< 2.1	< 2.8	<2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
Chlordane	NL	< 21	< 21	< 28	< 20	< 21	< 22	< 21	< 21	< 21	< 21	< 21	< 20	< 21	< 370	< 22	< 21	< 21	< 21	< 22	< 21
delta-BHC	40	< 2.1	< 2.1	< 2.8	1.4J	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	1.5J	< 2.1	< 2.2	< 2.1
Dieldrin	5	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
Endosulfan I	2400	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
Endosulfan II	2400	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	0.71J	< 2.1	< 2.2	0.95J
Endosulfan Sulfate	2400	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	<2.1
Endrin	14	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	1.4J	< 2.1	< 2.2	1.1J
Endrin aldehyde	NL	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	<2.1
Endrin Ketone	NL	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
gamma BHC (Lindane)	100	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	1.2	1.4J	< 2.2	< 2.1
gamma- Chlorodane	NL	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	2.2	1.5J
Heptachlor	42	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	<2.1
Heptachlor epoxide	NL	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.1
Methoxychlor	NL	< 2.1	< 2.1	< 2.8	< 2.0	< 2.1	< 2.2	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.0	< 2.1	< 37	< 2.2	< 2.1	1.8J	< 2.1	< 2.2	< 2.1
Toxaphene	NL	< 21	< 21	< 28	< 20	< 21	< 22	< 21	< 21	< 21	< 21	< 21	< 20	< 21	< 370	< 22	< 21	< 21	< 21	< 22	< 21

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

 $\label{eq:continuous} J - Analyte \ detected \ at \ a \ level \ less \ than \ the \ Reporting \ Limit \ (RL) \ and \ greater \ than \ or \ equal \ to \ the \ Method \ Detection \ Limit \ (MDL).$ 

Concentrations within this range are estimated.

QFL - Florisil clean-up (EPA 3620) performed on extract.



## Table 5C: Soil Boring & Test Pit Samples Pesticides Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID		B-2 02	B-2 4-7	B-7 1-4	B-13 0-4	B-15 0-4	MW-005 8-10	MW-006 2-4	MW-5-9	MW-8 14-16	TP-3	TP-4	TP-6	TP-6B	TP-10	TP-13	TP-19	TP-21
Date	Part 375	5/6/2009	5/5/2009	5/6/2009	5/5/09	05/06/09	5/8/09	5/8/09	5/11/09	05/13/09	05/11/09	05/11/09	5/11/2009	5/11/2009	5/12/2009	5/12/2009	5/14/2009	5/14/2009
Depth'	Unrestricted Use	0-2'	4-7'	1-4'	0-4'	0-4'	8-10'	2-4'	8-10'	14-16'	NA	5-6'	5-7'	12-14'	6-10'	0-2'	4-6'	1-4'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
4,4'-DDT	3.3	< 2.2	< 2.0	< 2.3	< 2.0	2.8	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	1.4QFL,J	< 43	< 37
4-4'-DDD	3.3	< 2.2	< 2.2	< 2.3	< 2.0	2.0J	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
4-4'-DDE	3.3	2.0J	< 2.2	< 2.3	< 2.0	2.4	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
Aldrin	5	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	3.0QFL	< 2.0	< 43	< 37
alpha-BHC	20	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
alpha-Chlordane	94	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
beta-BHC	36	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
Chlordane	NL	< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	< 19	< 21	< 230	< 18	< 19	< 20	< 430	< 370
delta-BHC	40	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
Dieldrin	5	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
Endosulfan I	2400	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	1.0QFL,J	< 2.1	22QFL,J	< 1.8	4.5QFL	< 2.0	< 43	< 37
Endosulfan II	2400	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	240QFL	< 1.8	< 1.9	< 2.0	< 43	< 37
Endosulfan Sulfate	2400	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	0.47QFL,J	< 2.0	< 43	< 37
Endrin	14	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	1.5QFL,J	< 2.1	< 23	< 1.8	1.7QFL,J	0.98QFL,J	< 43	< 37
Endrin aldehyde	NL	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
Endrin Ketone	NL	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	< 1.8	< 1.9	< 2.0	< 43	< 37
gamma BHC (Lindane)	100	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	23QFL	< 1.8	3.0QFL	< 2.0	< 43	< 37
gamma- Chlorodane	NL	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	0.81QFL,J	< 2.1	< 23	0.55QFL,J	0.84QFL,J	< 2.0	< 43	< 37
Heptachlor	42	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	84QFL,B	< 1.8	< 1.9	< 2.0	< 43	< 37
Heptachlor epoxide	NL	< 2.2	< 2.2	< 2.3	< 2.0	< 2.3	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	< 23	0.51 OFL,J	0.73QFL,J	< 2.0	< 43	< 37
Methoxychlor	NL	< 2.2	< 2.2	< 2.3	< 2.0	0.75	< 1.9	< 1.9	< 1.8	< 2.0	< 1.9	< 2.1	140QFL	< 1.8	< 1.9	< 2.0	< 43	< 37
Toxaphene	NL	< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 2.0	< 19	< 21	< 230	< 18	< 19	< 20	< 430	< 370

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

Concentrations within this range are estimated.

QFL - Florisil clean-up (EPA 3620) performed on extract.



# Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Polychlorinated Biphenyls Table 5D: Soil Boring & Test Pit Samples

Soil Sample ID		SB-1 1-3	SB-2	SB-5 0-2	SB-5	SB-6 1-4	SB-7	SB-8 0-4	SB-8D 5-9	SB-9 1-4	SB-12 1-3	SB-13 1-5	SB-14 1-4	SB-15 1-4	SB-16 1-4	SB-17 1-4	SB-17 1-5	SB-18 1-4	SB-22 4-6	B-1 0-2	B-1 4-6
Date	Part 375 Unrestricted	5/4/09	05/05/09	5/6/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/5/09	5/5/2009	5/5/2009	5/5/2009	5/5/2009	05/06/09	05/05/09
Depth'	Use	1-3'	1-2'	0-2'	1-3'	1-4'	1-3'	0-4'	5-9'	1-4'	1-3'	1-5'	1-4'	1-4'	1-4'	1-4'	1-5'	1-4'	4-6'	0-2'	4-6'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Aroclor-1016	100	< 2.1	< 2.1	< 28	< 20	< 21	< 22	< 21	< 21	< 21	< 21	< 21	< 20	< 21	< 37	< 22	< 21	< 21	< 21	< 22	< 21
Aroclor-1221	100	< 21	< 2.1	< 28	< 20	< 21	< 22	< 21	< 21	< 21	< 21	< 21	< 20	< 21	< 37	< 22	< 21	< 21	< 21	< 22	< 21
Aroclor-1232	100	< 21	< 2.1	< 28	< 20	< 21	< 22	< 21	< 21	< 21	< 21	< 21	< 20	< 21	< 37	< 22	< 21	< 21	< 21	< 22	< 21
Aroclor-1242	100	< 21	< 2.1	< 28	< 20	< 21	< 22	< 21	< 21	< 21	< 21	< 21	< 20	< 21	< 37	< 22	< 21	< 21	< 21	< 22	< 21
Aroclor-1248	100	< 21	< 2.1	< 28	< 20	< 21	< 22	< 21	< 21	14QSU,C,J	18C,J	< 21	< 20	< 21	< 37	< 22	< 21	< 21	< 21	< 22	< 21
Aroclor-1254	100	< 21	< 2.1	< 28	< 20	< 21	< 22	< 21	< 21	< 21	11C,J	< 21	< 20	< 21	< 37	< 22	< 21	< 21	< 21	< 22	< 21
Aroclor-1260	100	< 21	< 2.1	< 28	< 20	< 21	< 22	< 21	< 21	< 21	< 21	< 21	< 20	< 21	< 37	< 22	< 21	< 21	< 21	< 22	< 21

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 20

All units are micrograms per kilogram (µg/kg)

QSU - Sulfur (EPA 3660) clean-up performed on extract.

- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
- D Dilution requirted on sample for analysis.

B-2 02	B-2 4-7	B-7 1-4	B-13 0-4	B-15 0-4	MW-005 8-10	MW-006 2-4	MW-5-9	MW-8 14-16	TP-3	TP-4	WS4P*	TP-6	TP-6B	TP-10	TP-13	TP-19	TP-21
5/6/2009	5/5/2009	5/6/2009	5/5/09	05/06/09	5/8/09	5/8/09	5/11/09	05/13/09	05/11/09	05/11/09	05/14/09	5/11/2009	5/11/2009	5/12/2009	5/12/2009	5/14/2009	5/14/2009
0-2'	4-7'	1-4'	0-4'	0-4'	8-10'	2-4'	8-10'	14-16'	NA	5-6'		5-7'	12-14'	6-10'	0-2'	4-6'	1-4'
Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Water	Solid	Solid	Solid	Solid	Solid	Solid
< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	< 19	< 21	< 0.50	< 2300	< 18	< 19	< 20	< 21	< 19
< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	< 19	< 21	< 0.50	< 2300	< 18	< 19	< 20	< 21	< 19
< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	< 19	< 21	< 0.50	< 2300	< 18	< 19	< 20	< 21	< 19
< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	< 19	< 21	< 0.50	< 2300	< 18	< 19	< 20	< 21	< 19
< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	< 19	< 21	26QSU	20000QSU,D	< 18	< 19	< 20	< 21	< 19
< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	80QSU	< 21	< 0.50	< 2300	< 18	< 19	< 20	46	< 19
< 22	< 20	< 23	< 20	< 23	< 19	< 19	< 18	< 20	< 19	< 21	< 0.50	< 2300	< 18	< 19	< 20	< 21	< 19

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg)

- QSU Sulfur (EPA 3660) clean-up performed on extract.

  J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.

  D - Dilution requirted on sample for analysis.



## Table 5E: Soil Boring & Test Pit Samples Metals Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID		SB-1 1-3	SB-2	SB-5 0-2	SB-5	SB-6 1-4	SB-7	SB-8 0-4	SB-8D 5-9	SB-9 1-4	SB-12 1-3	SB-13 1-5	SB-14 1-4
Date	Part 375	5/4/09	5/4/09	5/6/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09	5/4/09
Depth (ft)	Unrestricted Use	1-3'	1-2'	0-2'	1-3'	1-4'	1-3'	0-4'	5-9'	1-4'	1-3'	1-5'	1-4'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Aluminum	NI								15800B				
	NL	11300B	13700B	22000B	16900B	15800B	15700B	16700B		17700B	18300B	18300B	11900B
Antimony	NL	< 17.9	< 19.2	< 23.2	< 16.7	< 19.7	< 18.4	< 18.3	< 17.8	< 19.3	< 17.4	< 17.8	< 16.8
Arsenic	13	10.4	7.1	5.5	3.5	4.5	4.7	4.1	4.5	3.4	8.1	3.8	3.1
Barium	350	90.5	112	187	151	129	96.8	119	124B	89.3B	170B	117B	59.2B
Beryllium	7.2	0.520	0.566	1.02	0.877	0.638	0.821	0.699	0.697B	0.683B	0.866B	0.791B	0.428B
Cadmium	2.5	0.517	0.081J	0.318	0.206J	0.226J	0.117J	0.163J	0.331B	0.196Ј,В	0.282B	0.212J,B	0.170J,B
Calcium	NL	38500	2800	24800	36400	39300	2260	9740	7610	1700	26800	2980	1810
Chromium	NL	18.7	18.3	28.7	20.6	19.9	21.5	22.0	22.0B	21.1B	23.3B	20.7B	13.8B
Cobalt	NL	12.5	11.1	14.8	14.8	11.4	12.7	11.9	12.1	12.0B	21.1B	7.40B	7.04B
Copper	50	163	17.6	52.8	52.6	19.2	10.9	17.7	31.5B	11.5B	26.4B	13.8B	8.8B
Iron	NL	46600	24700	31000	23400	21200	29100	29200	24300B	24000B	28900B	24400B	17400B
Lead	63	21.9	10.3	29.4	21.5	10.1	15.5	10.6	11.1	14.6	14.8	17.2	12.5
Magnesium	NL	11500	5240	10500	10200	14100	3420	6680	9710	4640	13300	3660	2900
Manganese	1600	4030D,B	269B	723B	599B	658B	1540B	1430B	612B1,B	355B1,B	1280B1,B	186B1,B	316B1,B
Mercury	0.18	0.0266	0.0169J	0.0461	0.0198J	0.0184J	0.0320	0.0249J	< 0.0249	0.0138J	< 0.0257	0.0221J	0.0146J
Nickel	30	23.5	24.3	33.1	22.3	26.5	15.3	27.7	29.9	19.3	36.4	15.6	12.4
Potassium	NL	2390	2110	3190	3070	2970	1520	2550	2200	1330	2430	1390	878
Selenium	3.9	< 4.8	< 5.1	< 6.2	< 4.5	< 5.3	< 4.9	< 4.9	1.4J,B	1.2J,B	1.0JB	1.5J,B	1.3J,B
Silver	2	< 0.596	< 0.639	0.150J,B	0.102J,B	0.096J,B	0.112J,B	0.114J,B	< 0.594	< 0.644	< 0.580	< 0.594	< 0.558
				,		,	,						
Sodium	NL	205	145J	258	233	199	122J	143J	167	190	196	265	114J
Thallium	NL	< 7.2	< 7.7	< 9.3	< 6.7	< 7.9	< 7.4	< 7.3	0.5J	< 38.6	< 7.0	< 7.1	< 6.7
Vanadium	NL	24.5	23.6	39.6	29.3	26.8	41.0	28.3	26.8B	33.6B	30.5B	31.3B	25.2B
Zinc	109	113B	55.9B	113B	74.4B	59.5B	65.8B	70.3B	75.8B	65.0B	65.2B	54.1B	53.8B

### NOTES

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per kilogram (mg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

B - Analyte was detected in the associated Method Blank

D08 - Dilution required due to high concentration of target analyte(s)

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

Concentrations within this range are estimated.



## Table 5E: Soil Boring & Test Pit Samples Metals Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID		SB-15 1-4	SB-16 1-4	SB-17 1-4	SB-17 1-5	SB-18 1-4	SB-22 4-6	B-1 0-2	B-1 4-6	B-2 0-2	B-2 4-7	B-7 1-4	B-13 0-4	B-15 0-4	MW-005 8-10	MW-006 2-4	MW-5-9
Date	Part 375	5/4/09	5/5/09	5/5/09	5/5/09	5/5/09	5/5/09	05/06/09	05/05/09	5/6/09	5/5/2009	5/6/2009	5/5/09	5/6/09	5/8/09	5/8/09	5/11/09
Depth (ft)	Unrestricted Use	1-4'	1-4'	1-4'	1-5'	1-4'	4-6'	0-2'	4-6'	0-2'	4-7'	1-4'	0-4'	0-4'	8-10'	2-4'	8-10'
Matrix		Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Aluminum	NL	21000B	14700B	12300B	12300B	14800B	18700B	13100B	12500B	16400B	15600B	16900B	14800B	24300B	12900B	10600B	9280
Antimony	NL	< 19.6	< 15.4	< 19.9	< 17.1	< 17.2	< 17.4	< 20.2	< 18.3	< 21	< 17.1	< 18.9	< 17.2	< 21.2	< 17.1	< 18.2	< 15.4
Arsenic	13	6.0	3	5.3	4.4	1.7J	3.5	3.9	4.7	4.0	4.0	3.9	3.3	3.9	3.9	4.0	2.2
Barium	350	168B	136B	82.1B	61.9	120	98.5	78.0	79.5	93.3	136	210	60.4B	167	101B	93.2B	62.5
Beryllium	7.2	0.907B	0.850B	0.545B	0.552	0.667	0.608	0.597	0.631	0.686	1.02	1.61	0.505B	1.17	0.609B	0.527B	0.446
Cadmium	2.5	0.248J,B	0.306B	0.400B	0.177Ј	0.143J	0.114J	0.404	0.370	0.125J	0.705	0.185J	0.186J,B	0.134J	0.272B	0.251B	0.084J
Calcium	NL	7290	8640	23900	60600D	15800	2080	23200	1930	983	16300	2070	671	2080	48300	55500	53800
Chromium	NL	25.7B	19.4B	98.2B	16.5	18.0	22.8	15.3	15.6	21.4	17.7	21.7	14.0B	26.7	17.8B	15.5B	13.8
Cobalt	NL	12.6B	9.95B	6.75B	7.33	10.6	9.27	8.61	7.85	8.25	9.94	12.1	5.69B	10.4	8.91B	8.38B	8.09
Copper	50	21.2B	16.7B	21.9B	17.5	12.9	11.4	10.7	10.4	9.8	17.2	19.7	9.0B	15.6	20.1B	16.0B	15.2
Iron	NL	30900B	20500B	27400B	18300	21500	28200	18200	18400	21600	21300	25500	17800B	27600	20200B	18300B	15100
Lead	63	11.2	10.8	32.8	8.0	13.7	12.1	26.1	22.1	11.7	12.8	11.1	14.2	12.1	17.2	8.4	7.1
Magnesium	NL	7000	5680	9130	16300	6400	4510	10600	2740	4060	5880	5420	2330	5570	12600	16500	18300
Manganese	1600	926B1,B	275B1,B	2500B1,B	497B	645B	243B	585B	196B	855B	542B	881B	147B1,B	286B	421B1,B	507B1,B	530
Mercury	0.18	< 0.0104	0.0141J	0.0335	< 0.0248	0.0223J	0.0199J	0.0378	0.0487	0.0461	0.0110J	0.0198J	0.0143J	0.0255J	< 0.0229	< 0.0242	< 0.0222
Nickel	30	33.0	24.7	15.5	19.7	18.4	17.2	15.4	15.0	19.4	25.7	32.1	10.7	30.2	22.8	20.7	18.2
Potassium	NL	2310	1710	1400	3480	2140	1660	1470	1140	1840	1820	1720	1040	1840	1880	2460	2030
Selenium	3.9	1.3J,B	< 4.2	1.3J,B	< 4.6	0.7Ј	< 4.6	0.8J	0.8J	< 5.6	< 4.6	< 5.0	1.8J,B	< 5.7	1.0J,B	0.9J,B	< 4.1
Silver	2	< 0.652	< 0.530	< 0.662	< 0.571	0.108J,B	0.107J,B	0.113J,B	0.178J,B	< 0.700	< 0.570	0.168J,B	< 0.574	0.164J,B	< 0.571	< 0.606	< 0.515
Sodium	NL	153J	149	276	364	171	160J	153J	86.3J	94.3J	105J	81.4J	79.1J	76.3J	159J	231	172
Thallium	NL	< 7.8	0.4J	< 7.9	< 6.9	< 6.9	< 7.0	< 8.1	< 7.3	< 8.4	< 0.3	< 7.6	< 6.9	< 8.5	< 6.9	< 7.3	< 6.2
Vanadium	NL	31.9B	245B	51.9B	22.3	27.1	34.5	27.5	27.6	31.0	23.3	29.8	26.7B	35.5	23.2B	20.2B	17.8
Zinc	109	70.4B	60.7B	86.1B	56.1B	56.6B	54.9B	82.1B	74.0B	80.4B	61.6B	71.8B	64.2B	79.2B	60.2B	58.7B	52.9B

### NOTES

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per kilogram (mg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

B - Analyte was detected in the associated Method Blank

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

Concentrations within this range are estimated.



## Table 5E: Soil Boring & Test Pit Samples Metals Riverview Industrial Center 5335 River Road Tonawanda, NY

Call Canada ID											
Soil Sample ID	7	MW-8 14-16	TP-3	TP-4	WS4P*	TP-6	TP-6B	TP-10	TP-13	TP-19	TP-21
Date	Part 375 Unrestricted Use		05/11/09	05/11/09	05/14/09	5/11/2009	5/11/2009	5/12/2009	5/12/2009	5/14/2009	5/14/2009
Depth (ft)		14-16'	NA	5-6'		5-7'	12-14'	6-10'	0-2'	4-6'	1-4'
Matrix		Solid	Solid	Solid	Water	Solid	Solid	Solid	Solid	Solid	Solid
Aluminum	NL	9490	11200	12500	104	14400	8100	10500	969	18200B	1560B
Antimony	NL	< 17.8	< 16.7	< 17.9	< 0.0200	< 19.3	< 15.8	< 17.8	< 90.1	< 18.5	< 16.2
Arsenic	13	3.4	4.1	2.6	0.0336	2.5J	2.6	3.5	1.7J	4.2	3.5
Barium	350	96.7	90.9	136	0.800	123	77.8	94.7	7.47	176	15.0
Beryllium	7.2	1.50	0.604	0.585	0.0040	0.560	0.396	0.527	0.227J	2.22B	0.151J,B
Cadmium	2.5	3.61	0.441	< 0.238	0.0038	0.090J	< 0.237	0.058J	< 0.240	0.483	0.427
Calcium	NL	109000D	17800	2370	300	23500	43100	53000	402000D	124000D	38000
Chromium	NL	24.7	26.1	14.6	0.129	17.8	11.7	17.1	3.90	9.88	2.52
Cobalt	NL	2.35	7.04	5.72	0.0564	6.35	7.23	8.49	0.859	4.19	2.62
Copper	50	2150	20.2	8.2	0.127	17.2	11.8	16.4	3.5	9.2	5.4
Iron	NL	14200	16600	15,900	130	16200	13500	18200	2010	10600	4360
Lead	63	167	28.4	7.6	0.193	24.6	5.1	8.4	3.3	21.4B	61.7B
Magnesium	NL	18200	7,090	3,290	93.5	15300	12500	15900	7250	12600	3560
Manganese	1600	889	357	153	5.11	300	493	478	103	908	201
Mercury	0.18	< 0.0241	0.0822	0.0471	< 0.0236	0.0299	< 0.0217	0.0130J	0.0106Ј	0.0137Ј	0.0206J
Nickel	30	12.7	19.2	14.8	0.144	18.4	16.7	21.1	4.27	9.15	7.62
Potassium	NL	613	1180	1070	20.8	1450	1650	2160	572	1310	269
Selenium	3.9	< 4.8	0.7Ј	< 4.8	< 0.0150	< 5.1	< 4.2	< 4.7	< 24	1.3J	< 4.3
Silver	2	0.208J	0.090J,B	< 0.596	< 0.0030	< 0.644	< 0.528	< 0.593	< 0.600	0.096J,B	0.102J,B
Sodium	NL	496	125J	119J	27.6	178J	140Ј	178	67.2J	613	79.8J
Thallium	NL	< 7.1	< 6.7	< 7.2	< 0.0200	< 7.7	< 6.3	< 7.1	< 7.2	< 7.4	< 6.5
Vanadium	NL	7.66	19.9	18.6	0.180	23.4	15.1	20.8	3.08	11.9	3.49
Zinc	109	349B	82.9B	57.1B	0.697	76.2B	44B	66.8B	10.0B	45.6B	283B

### NOTES

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per kilogram (mg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

B - Analyte was detected in the associated Method Blank

 $\mbox{\bf D08}$  - Dilution required due to high concentration of target analyte(s)

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

Concentrations within this range are estimated.



## Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Volatile Organic Compounds

Table 6A: Groundwater Monitoring Wells

Soil Sample ID	TOGs	MW-1	MW-2R	MW-4	MW-005	MW-006	MW-007	MW-008	MW-9
Date	1.1.1 NYS Groundwater	06/13/09	06/13/09	06/13/09	06/13/09	06/13/09	6/12/09	6/12/09	06/12/09
Matrix	Guidance Values	Water	Water	Water	Water	Water	Water	Water	Water
2-Butanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Methylnapthalene	4.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Methyl-2Pentadone	NL	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	50	1.8J	< 1.0	< 1.0	< 1.0	< 1.0	6.6	2.0J	< 1.0
Benzene	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon disulfide	NL	< 1.0	< 1.0	< 1.0	< 1.0	0.53J	0.53J	0.64J	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cyclohexane	NL	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylcyclohexane	NL	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MtBE	NL	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-Butylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-propylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, Total	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per Liter  $(\mu g/L)$ 

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations

Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.	



## Former Gasoline Distribution Terminal 5335 River Road

## Tonawanda, New York

Semi-Volatile Organic Compounds
Table 6B: Groundwater Monitoring Wells

Soil Sample ID	TOGs 1.1.1	MW-1	MW-2R	MW-4	MW-005	MW-006	MW-007	MW-008	MW-9	DUP-13
Date	NYS Groundwater Guidance Values	06/13/09	06/13/09	06/13/09	06/13/09	06/13/09	6/12/09	6/12/09	06/12/09	06/13/09
Matrix		Water	Water	Water	Water	Water	Water	Water	Water	Water
2,4 Di MethylPhenol	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
2-Methylnaphthalene	4.2	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Acenaphthene	20	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Acetophenone	NL	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Anthracene	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Benzaldehyde	NL	< 48	< 47	< 48	< 47	< 50	< 47	< 57	< 48	< 47
Benzo(a)anthracene	0.002	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Benzo(a)pyrene	ND	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Benzo(b)fluoranthene	0.002	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Benzo(g,h,i)perylene	ND	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Benzo(k)fluoranthene	0.002	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Biphenyl	5	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Bis-(2 chloroethoxy) methane	5	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Bis-(2-ethylhexyl) phthalate	5	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	3.1J	< 9.6	< 9.4
Carbazole	NL	< 4.8	< 4.7	< 4.8	< 4.7	< 5.0	< 4.7	< 5.7	< 4.8	< 4.7
Chrysene	0.002	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Dibenzo(a,h)anthracene	NL	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Dibenzofuran	NL	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Diethyl phthalate	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Di-n-butyl-phthalate	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Di-n-octyl phthalate	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Fluoranthene	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Fluorene	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Indeno(1,2,3-cd)pyrene	0.002	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Naphthalene	10	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
N-nitrosdiphenylamine	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Phenanthrene	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4
Pyrene	50	< 9.5	< 9.4	< 9.5	< 9.4	< 9.9	< 9.4	< 11	< 9.6	< 9.4

### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per Liter (µg/L)

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations





## Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Pesticides

**Table 6C: Groundwater Monitoring Wells** 

Soil Sample ID	TOGs	MW-1	MW-2R	MW-4	MW-005	MW-006	MW-007	MW-008	MW-9	DUP-13
Date	1.1.1 NYS Groundwater Guidance Values	06/13/09	06/13/09	06/13/09	06/13/09	06/13/09	6/12/09	6/12/09	06/12/09	06/13/09
Matrix		Water	Water	Water	Water	Water	Water	Water	Water	Water
4,4'-DDT (2C)	0.3	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
4-4'-DDD (2C)	0.2	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
4-4'-DDE (2C)	0.2	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Aldrin (2C)	ND	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
alpha-BHC (2C)	NL	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	0.028J	< 0.048	< 0.047
alpha-Chlordane (2C)	NL	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
beta-BHC (2C)	NL	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Chlordane (2C)	0.05	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
delta-BHC (2C)	NL	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Dieldrin (2C)	0.004	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Endosulfan I (2C)	0.009	< 0.048	< 0.047	< 0.047	0.068	< 0.050	< 0.047	< 0.053	< 0.048	0.056
Endosulfan II (2C)	0.009	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Endosulfan Sulfate (2C)	0.009	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Endrin (2C)	ND	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Endrin aldehyde (2C)	5	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Endrin Ketone (2C)	5	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
gamma BHC (Lindane) (2C)	5	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
gamma- Chlorodane (2C)	NL	< 0.048	< 0.047	< 0.047	0.042J	0.020	0.033J	0.021J	0.035J	0.024J
Heptachlor (2C)	0.04	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Heptachlor epoxide (2C)	0.03	< 0.048	< 0.047	< 0.047	0.025J	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Methoxychlor (2C)	35	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047
Toxaphene (2C)	0.06	< 0.048	< 0.047	< 0.047	< 0.047	< 0.050	< 0.047	< 0.053	< 0.048	< 0.047

## NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per Liter  $(\mu g/L)$ 

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations





### Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Metals

**Table 6E: Groundwater Monitoring Wells** 

Soil Sample ID	TOGs	MW-1	MW-2R	MW-4	MW-005	MW-006	MW-007	MW-008	MW-3
Date	1.1.1 NYS Groundwater	06/13/09	06/13/09	06/13/09	06/13/09	06/13/09	6/12/09	6/12/09	06/12/09
Matrix	Guidance Values	Water							
Aluminum	0.1	6.51	1.84	3.94	1.19	6.22	9.31	17.3	1.08
Antimony	0.003	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200
Arsenic	0.025	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100
Barium	1	0.180	0.0280	0.0975	0.0356	0.0867	0.154	0.173	0.119
Beryllium	0.003	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Cadmium	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0016	< 0.0010	< 0.0010	< 0.0010
Calcium	NA	149	209	102	95.8	237	73	295	43.4
Chromium	0.05	0.0062	< 0.0040	< 0.0040	< 0.0040	0.0138	0.0151	0.0357	< 0.0040
Cobalt	0.005	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0.0074	< 0.0040	0.0047	< 0.0040
Copper	0.2	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0.0225	0.0115	0.0281	< 0.0100
Iron	0.3	6.06	1.88	3.39	1.03	11.6	970	22.8	1.05
Lead	0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0053	0.0082	0.0182	< 0.0050
Magnesium	35	84.5	527D	97.1	316	656D	36.1	298	116
Manganese	0.3	0.752	0.430	0.0109	0.251	0.766	0.204	0.474	0.0391
Mercury	0.0007	< 0.0002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Nickel	0.1	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0.0156	< 0.0100	0.0178	< 0.0100
Potassium	NA	5.09	18.7	3.62	8.30	33.3	15.3	16.0	10.7
Selenium	0.01	< 0.0150	< 0.0150	< 0.0150	< 0.0150	< 0.0150	< 0.0150	< 0.0150	< 0.0150
Silver	0.05	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Sodium	20	13.0	230	16.1	128	203	64.3	180	52.1
Vanadium	0.014	0.0108	< 0.0050	0.0070	< 0.0050	0.0090	0.0168	0.0250	< 0.0050
Thallium	0.0005	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200
Zinc	2	0.0239	0.0134	0.0155	< 0.0100	0.0248	0.0323	0.0951	< 0.0100

#### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per Liter (mg/L)

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations

D - Dilution required for analysis.

DUP-13

06/13/09

Water

1.64

< 0.0200 < 0.0100

0.0431

< 0.0020

< 0.0010

95.1

< 0.0040

< 0.0040

< 0.0100

1.54

< 0.0050

306

0.257

< 0.002 < 0.0100

9.03

< 0.0150

< 0.0030

123

< 0.0050

< 0.0200

< 0.0100



# Former Gasoline Distribution Terminal 5335 River Road Tonawanda, New York Polychlorinated Biphenyls Table 6D: Groundwater Monitoring Wells

Soil Sample ID	TOGs	MW-1	MW-2R	MW-4	MW-005	MW-006	MW-007	MW-008	MW-9	DUP-13
Date	1.1.1 NYS	06/13/09	06/13/09	06/13/09	06/13/09	06/13/09	6/12/09	6/12/09	06/12/09	06/13/09
Matrix	Groundwater	Water	Water	Water	Water	Water	Water	Water	Water	Water
Aroclor-1016	0.09	< 0.48	< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.53	< 0.48	< 0.47
Aroclor-1221	0.09	< 0.48	< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.53	< 0.48	< 0.47
Aroclor-1232	0.09	< 0.48	< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.53	< 0.48	< 0.47
Aroclor-1242	0.09	< 0.48	< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.53	< 0.48	< 0.47
Aroclor-1248	0.09	< 0.48	< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.53	< 0.48	< 0.47
Aroclor-1254	0.09	< 0.48	< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.53	< 0.48	< 0.47
Aroclor-1260	0.09	< 0.48	< 0.47	< 0.47	< 0.47	< 0.50	< 0.47	< 0.53	< 0.48	< 0.47

### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per Liter (µg/L)

NL - Analyte not listed in TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations



### Table 7A: UST's Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	T-1 NAPL	T-2 NAPL	T-3 NAPL	T-4 NAPL	T-5 NAPL
Date	05/19/09	05/19/09	05/19/09	05/19/09	05/19/09
Matrix	Waste	Waste	Waste	Waste	Waste
Benzene (µg/kg)	8600	< 9700	28000	5300 J	< 4800
Cyclohexane (µg/kg)	74000	< 9700	52000	< 9700	< 4800
Ethylbenzene (µg/kg)	3500 J	< 9700	90000	350000	63000
Isopropylbenzene (µg/kg)	24000	12000	31000	59000	58000
Methylcyclohexane (µg/kg)	240000	120000	160000	18000	< 4800
Toluene (µg/kg)	86000 B	12000 B	140000 B	11000 B	7800 B
Xylenes, Total (µg/kg)	750000	860000	420000	1600000	410000

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram (µg/kg) wet

- B Analyte was detected in the associated Method Blank
- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.



## Table 7B: UST's Semi-Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	T-1 NAPL	T-1 NAPL (RE-1)	T-2 NAPL	T-3 NAPL	T-3 NAPL (RE-1)	T-4 NAPL	T-5 NAPL	T-5 NAPL (RE-1)
Date	05/19/09	05/19/09	05/19/09	05/19/09	05/19/09	05/19/09	05/19/09	05/19/09
Matrix	Waste	Waste	Waste	Waste	Waste	Waste	Waste	Waste
2,4 Di MethylPhenol (µg/kg)	99000	< 780000	< 36000	79000	< 780000	< 390000	100000	< 850000
2-Methylnaphthalene (µg/kg)	4300000	4100000 D08	79000	4800000	5400000 D08	5800000 D02	5500000	5400000 D08
Acenaphthene (µg/kg)	220000	< 780000	< 36000	< 39000	< 780000	< 390000	360000	< 850000
Benzo(a)pyrene (µg/kg)	< 39000	< 780000	< 36000	< 39000	< 780000	< 390000	< 42000	< 850000
Biphenyl (µg/kg)	510000	< 780000	< 36000	310000	< 780000	< 390000	530000	< 850000
Dibenzofuran (µg/kg)	290000	< 780000	< 36000	< 39000	< 780000	< 390000	360000	< 850000
Fluorene (µg/kg)	430000	< 780000	< 36000	340000	< 780000	550000 D02	500000	< 850000
Naphthalene (µg/kg)	750000	< 780000	< 36000	1300000	1400000 D08	2000000 D02	1600000	1500000 D08
Phenanthrene (µg/kg)	990000	< 780000	< 36000	910000	910000 D08	1300000 D02	2200000	1800000 D08
Pyrene (µg/kg)	110000	< 780000	< 36000	< 39000	< 780000	< 390000	82000	< 850000

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Units for waste are micrograms per kilogram  $(\mu g/kg)$  wet

 $\,$  D02 -Dilution required due to sample matrix effects.

D08 - Dilution required due to high concentration of target analyte(s)



## Table 7C: UST's Pesticides Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	T-1 NAPL	T-2 NAPL	T-3 NAPL	T-4 NAPL*	T-4 NAPL	T-5 NAPL
Date	05/19/09	05/19/09	05/19/09	05/18/09	05/19/09	05/19/09
Matrix	Waste	Waste	Waste	Water	Waste	Waste
4,4'-DDD	Not Analyzed					
4,4'-DDE	Not Analyzed					
4,4'-DDT	Not Analyzed					
Aldrin	Not Analyzed					
alpha-BHC	Not Analyzed					
alpha-Chlordane	Not Analyzed					
beta-BHC	Not Analyzed					
delta-BHC	Not Analyzed					
Dieldrin	Not Analyzed					
Endosuflan I	Not Analyzed					
Endosuflan II	Not Analyzed					
Endosuflan sulfate	Not Analyzed					
Endrin	Not Analyzed					
Endrin aldehyde	Not Analyzed					
Endrin ketone	Not Analyzed					
gamma-BHC (Lindane)	Not Analyzed					
gamma-Chlorodane	Not Analyzed					
Heptachlor	Not Analyzed					
Heptachlor epoxide	Not Analyzed					
Methoxychlor	Not Analyzed					
Toxaphene	Not Analyzed					

### **NOTES:**

Pesticides were not analyzed for NAPL samples



## Table 7D: UST's PCB's Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	T-1 NAPL	T-2 NAPL	T-3 NAPL	T-4 NAPL	T-5 NAPL
Date	05/19/09	05/19/09	05/19/09	05/19/09	05/19/09
Matrix	Waste	Waste	Waste	Waste	Waste
Aroclor-1016	< 2.3	< 1.4	< 1.8	< 1.9	< 2.3
Aroclor-1221	< 2.3	< 1.4	< 1.8	< 1.9	< 2.3
Aroclor-1232	< 2.3	< 1.4	< 1.8	< 1.9	< 2.3
Aroclor-1242	< 2.3	< 1.4	< 1.8	< 1.9	< 2.3
Aroclor-1248	< 2.3	< 1.4	< 1.8	< 1.9	< 2.3
Aroclor-1254	< 2.3	< 1.4	< 1.8	< 1.9	< 2.3
Aroclor-1260	< 2.3	< 1.4	< 1.8	< 1.9	< 2.3

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009. Units for waste are milligrams per kilogram (mg/kg)



## Table 7E: UST's Metals Riverview Industrial Park 5335 River Road Tonawanda, NY

Soil Sample ID	T-1 NAPL	T-2 NAPL	T-3 NAPL	T-4 NAPL	T-5 NAPL
Date	05/19/09	05/19/09	05/19/09	05/19/09	05/19/09
Matrix	Waste	Waste	Waste	Waste	Waste
Arsenic (mg/kg)	0.2 J	< 1.9	< 1.9	< 1.9	< 1.9
Barium (mg/kg)	< 0.461	0.051 J	< 0.470	24.8	< 0.469
Cadmium (mg/kg)	< 0.184	0.057 J	< 0.188	0.174 J	< 0.188
Calcium (mg/kg)	< 46.1	< 48.0	< 47.0	23.8 J	< 46.9
Chromium (mg/kg)	< 0.461	< 0.480	< 0.470	3.09	< 0.469
Copper (mg/kg)	0.1 JB	< 1.0	0.4 JB	0.6 JB	0.5 JB
Iron (mg/kg)	< 9.2	5.4 J	< 9.4	44.5	< 9.4
Lead (mg/kg)	0.2 J	0.4 J	0.1 J	46.6	< 0.9
Manganese (mg/kg)	< 0.2	0.1 J	< 0.2	0.4	< 0.2
Nickel (mg/kg)	< 0.461	< 0.480	< 0.470	0.270 J	< 0.469
Vanadium (mg/kg)	< 0.461	< 0.480	< 0.470	0.408 J	< 0.469
Zinc (mg/kg)	0.5 J	< 1.9	< 1.9	178	< 1.9

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per kilogram (µg/kg) wet

- B Analyte was detected in the associated Method Blank
- $\begin{tabular}{ll} $J$ Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated. \\ \end{tabular}$



## Table 7F: UST's Material Composition Identification Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	T-1 NAPL	T-2 NAPL	T-3 NAPL	T-4 NAPL	T-5 NAPL
Date	5/19/09	5/19/09	05/19/09	5/19/2009	5/19/2009
Matrix	Waste	Waste	Waste	Waste	Waste
Fuel Oil #2	1000000D	< 10	990000D	< 1400	< 1300
Fuel Oil #4	< 1200	10000	< 1400	890000D	1100000
Fuel Oil # 6	< 1200	< 10	< 1400	< 1400	< 1300
Gasoline	< 480	< 4.2	< 560	< 560	< 510
Kerosene	< 1200	< 10	< 1400	< 1400	<1300
Motor Oil	< 2400	< 21	< 2800	< 2800	< 2600
Other - 1	< 1200	< 10	< 1400	< 1400	< 1300

<sup>\*</sup>Units for waste are milligrams per kilogram (mg/kg)



### Table 8A: Oil/Water Separator & Site Sewer Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, New York

Soil Sample ID	TOGs	OWS-1	MH-1	MH-1	MH-2
Date	1.1.1	05/18/09	05/15/2009	5/21/2009	5/19/2009
Time	Water Guidance Values for Ambient	Water Guidance 11:55 10:30		9:30	15:00
Matrix	and Class D	Water	Water	Water	Water
2-Butanone	50	< 5.0	< 5.0	< 5.0	< 5.0
2-Methylnapthalene	42	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	5	< 1.0	< 1.0	< 1.0	< 1.0
4-Methyl-2Pentadone	NL	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	50	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	10	< 1.0	< 1.0	< 1.0	< 1.0
Carbon DiSulfide	NL	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	400	< 1.0	< 1.0	< 1.0	< 1.0
Cyclohexane	NL	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	23	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	200	< 1.0	< 1.0	< 1.0	< 1.0
Methylcyclohexane	NL	< 1.0	< 1.0	< 1.0	< 1.0
MtBE	NL	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	10	< 1.0	< 1.0	< 1.0	< 1.0
n-Butylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0
n-propylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	480	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes, Total	5	< 2.0	< 2.0	< 2.0	< 2.0

### NOTES:

All sample analysis performed by Test America (Amherst, New York) in May 2009. Units for liquid are micrograms per Liter  $(\mu g/L)$ 



## Table 8B: Oil/Water Separator & Site Sewer Semi - Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, New York

Soil Sample ID	TOGs	OWS-1	OWS-1	MH-1	MH-1	MH-2	MECH-PIT
Date	1.1.1	05/18/09	05/21/09	05/15/2009	5/21/2009	5/19/2009	5/18/2009
Sample interval (feet)	Water Guidance Values for Ambient	11:55	9:00	10:30	9:30	15:00	10:30
Matrix	and Class D	Water	Water	Water	Water	Water	Water
Benzo(a)anthracene	0.23	< 9.9	< 10	1. <b>7</b> J	< 9.6	< 9.4	< 13.0
Benzo(a)pyrene	0.0012	< 9.9	< 10	2.5J	< 9.6	< 9.4	< 13.0
Benzo(b)fluoranthene	0.002	< 9.9	< 10	3.3J	< 9.6	< 9.4	< 13.0
Bis-(2 ethylhexyl) phthalate	5	< 9.9	< 10	< 11	< 9.6	< 9.4	2.9B,J
Carbazole	NL	< 5.0	< 2.5	0.36J	< 4.8	< 4.7	< 6.5
Chrysene	0.002	< 9.9	< 10	2.6J	< 9.6	< 9.4	< 13.0
Fluoranthene	50	< 9.9	< 10	5.4J	< 9.6	< 9.4	< 13.0
Phenanthrene	45	< 9.9	< 10	2.3J	< 9.6	< 9.4	< 13.0
Pyrene	42	< 9.9	< 10	4.2J	< 9.6	< 9.4	< 13.0

#### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Units for liquid are micrograms per Liter (µg/L)

- B Analyte was detected in the associated Method Blank
- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.



## Table 8C: Oil/Water Separator & Site Sewer Pesticides Riverview Industrial Center 5335 River Rd. Tonawanda, New York

Soil Sample ID	TOGs	OWS-1	MH-1
Date	1.1.1 Water Guidance	05/21/09	5/21/2009
Time	Values for Ambient	9:00	9:30
Matrix	and Class D	Water	Water
4,4'-DDD	1x10-5	< 0.050	< 0.067
4-4'-DDE	1x10-5	< 0.050	< 0.067
4-4'-DDT	1x10-5	< 0.050	< 0.067
Aldrin	0.001	< 0.050	< 0.067
alpha-BHC	NL	< 0.050	< 0.067
alpha-Chlordane	NL	< 0.050	< 0.067
delta-BHC (2C)	NL	< 0.050	< 0.067
Dieldrin	0.001	< 0.050	< 0.067
Endosulfan I	0.22	< 0.050	< 0.067
Endosulfan II	0.22	< 0.050	< 0.067
Endosulfan Sulfate	0.22	< 0.050	< 0.067
Endrin	0.002	< 0.050	< 0.067
Endrin aldehyde	5	< 0.050	< 0.067
Endrin ketone	5	< 0.050	< 0.067
gamma BHC (Lindane)	ND	< 0.050	< 0.067
gamma Chlorodane	5	0.025J	0.033J
Heptachlor	2x10-4	< 0.050	< 0.067
Heptachlor epoxide	3x10-4	< 0.050	< 0.067
Methoxychlor	35	< 0.050	< 0.067
Toxaphene	6x10-6	< 0.50	< 0.67

#### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009. Units for liquid are micrograms per Liter  $(\mu g/L)$ 

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or Concentrations within this range are estimated.



## Table 8D: Oil/Water Separator & Site Sewer PCB's Riverview Industrial Center 5335 River Rd. Tonawanda, New York

Soil Sample ID	TOGs	OWS-1	OWS-1	MH-1	MH-1	MH-2	MECH-PIT
Date	1.1.1 Water	05/18/09	05/21/09	05/15/2009	5/21/2009	5/19/2009	5/18/2009
Depth (ft)	Guidance	11:55	9:00	10:30	9:30	15:00	10:30
Matrix	Values for	Water	Water	Water	Water	Water	Water
Aroclor-1016	1x10-6	< 0.47	< 0.52	< 0.60	< 0.67	< 0.47	< 0.60
Aroclor-1221	1x10-6	< 0.47	< 0.52	< 0.60	< 0.67	< 0.47	< 0.60
Aroclor-1232	1x10-6	< 0.47	< 0.52	< 0.60	< 0.67	< 0.47	< 0.60
Aroclor-1242	1x10-6	< 0.47	< 0.52	< 0.60	< 0.67	< 0.47	< 0.60
Aroclor-1248	1x10-6	< 0.47	< 0.52	< 0.60	< 0.67	< 0.47	< 0.60
Aroclor-1254	1x10-6	< 0.47	< 0.52	< 0.60	< 0.67	< 0.47	< 0.60
Aroclor-1260	1x10-6	< 0.47	< 0.52	0.33J	< 0.67	< 0.47	< 0.60

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

Units for liquid are micrograms per Liter (µg/L)

J - Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.



## Table 8E: Oil/Water Separator & Site Sewer Metals Riverview Industrial Center 5335 River Rd. Tonawanda, New York

Soil Sample ID	TOGs	OWS-1	MH-1	MH-1	MH-2	MECH-PIT
Date	1.1.1 Water Guidance	05/18/09	05/15/2009	5/21/2009	5/19/2009	5/18/2009
Depth (ft)	Values for Ambient and	11:55	10:30	9:30	15:00	10:30
Matrix	Class D	Water	Water	Water	Water	Water
Aluminum	0.1	< 0.200	2.97	0.267	0.351	< 0.200
Barium	1	0.0288	0.0969	0.0287	0.0282	0.0485
Cadmium	0.01	< 0.0010	0.0021	< 0.0010	< 0.0010	< 0.0010
Calcium	NL	47.2	92.2	56.6	45.0	76.4
Chromium	0.05	< 0.0040	0.0068	< 0.0040	< 0.0040	0.130
Copper	1	< 0.0100	0.283	< 0.0100	< 0.050	0.0114
Iron	0.3	0.209	3.75	0.377	0.519	0.667
Lead	0.05	< 0.0050	0.0477	< 0.0050	< 0.0050	0.0743
Magnesium	35	14.1	16.1	15.5	13.2	9.61
Manganese	0.6	0.154	0.588	0.335	0.314	0.0557
Potassium	NL	1.50	3.90	1.36	1.27	61.3
Sodium	NL	35.6	201	38.3	36.0	174
Thallium	0.19	< 0.0200	0.0085	< 0.0200	< 0.0200	< 0.0200
Zinc	5	< 0.0100	0.424	< 0.0100	< 0.0100	0.259

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009. Units for liquid are milligrams per Liter (mg/L)



### Table 9A: Sediment Samples & Catch Basin Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Do at 275	SED-2	SED-3-OF	SED-4	SED-5	SED-6	SS-1
Date	- Part 375 - Unrestricted	05/13/09	05/18/09	05/18/09	5/18/2009	05/18/09	5/13/2009
Time	Use	TNR*	11:45	12:00	14:00	14:30	11:40
Matrix	Use	Solid	Solid	Solid	Solid	Solid	Solid
Acetone (µg/kg)	50	79	< 16	< 16	< 7.8	< 28	14J
Benzene (µg/kg)	60	6.6J	< 16	< 16	5.0J	< 28	< 6.4
Carbon DiSulfide (µg/kg)	NL	< 10	< 16	< 16	< 7.8	< 28	1.9
Chlorobenzene (µg/kg)	1100	5.7J	< 16	< 16	< 7.8	< 28	< 6.4
Cyclohexane (µg/kg)	NL	35	< 16	< 16	< 7.8	44D04	< 6.4
Ethylbenzene (µg/kg)	1000	52	< 16	< 16	< 7.8	< 28	< 6.4
Isopropylbenzene (μg/kg)	NL	9.2J	< 16	< 16	< 7.8	< 28	< 6.4
Methylcyclohexane (μg/kg)	700	35	< 16	< 16	< 7.8	27D04,J	< 6.4
Toluene (μg/kg)	700	50B	< 16	< 16	< 7.8	< 28	< 6.4
Xylenes, Total (μg/kg)	260	220	< 31	5.2J	9.1J	29D04,J	< 13

#### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram  $\;\; (\mu g/kg)$ 

- NL Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.
- $\boldsymbol{B}$  Analyte was detected in the associated Method Blank
- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.

D04 -Dilution required due to high levels of non-target compounds

\* Time not recorded on COC.



### Table 9B: Sediment Samples & Catch Basin Semi-Volatile Organic Compounds Riverview Industrial Center 5335 River Road Tonawanda, NY

Soil Sample ID	Dowt 275	SED-2	SED-3-OF	SED-4	SED-5	SED-6	SS-1
Date	Part 375	05/13/09	5/18/2009	05/185/09	5/18/2009	05/18/09	5/13/2009
Time	Unrestricted	TNR*	11:45	12:00	14:00	14:30	11:40
Matrix	Use	Solid	Solid	Solid	Solid	Solid	Solid
2,4 Di Methylphenol (µg/kg)	NL	< 73000	< 5400	< 5500	< 1400	< 9700	170J
2-Methylnaphthalene (µg/kg)	NL	3400 D02,J	< 5400	< 5500	< 1400	< 9700	< 220
Acenaphthene (µg/kg)	20000	8000 D02,J	< 5400	< 5500	< 1400	< 9700	< 220
Anthracene (µg/kg)	100000	13000 D02,J	< 5400	290 D02,J	< 1400	< 9700	< 220
Benzo(a)anthracene (µg/kg)	1000	71000 D02,J	< 5400	1200 D02,J	65 D02,J	< 9700	34J
Benzo(a)pyrene (µg/kg)	1000	74000 D02	< 5400	1000 D02,J	57 D02,J	400 D02,J	17J
Benzo(b)fluoranthene (µg/kg)	1000	100000 D02	< 5400	1100 D02,J	< 1400	500 D02,J	47J
Benzo(g,h,i)perylene (μg/kg)	100000	60000 D02,J	350D,J	1000 D02,J	62 D02,J	480 D02,J	21J
Benzo(k)fluoranthene (µg/kg)	800	29000 D02,J	< 5400	840 D02,J	< 1400	< 9700	21J
(µg/kg)	NL	< 73000	< 5400	< 5500	< 1400	3800 D02,J	160J
Carbazol (µg/kg)	NL	17000 D02,J	< 5400	< 5500	< 1400	< 9700	< 220
Chrysene (µg/kg)	1000	83000 D02	< 5400	1200 D02,J	< 1400	< 9700	67J
Dibenzo(a,h)anthracene (µg/kg)	330	14000 D02,J	< 5400	350 D02,J	< 1400	< 9700	< 220
Dibenzofuran (µg/kg)	NL	3600 D02,J	< 5400	< 5500	< 1400	< 9700	< 220
Fluoranthene (µg/kg)	100000	220000 D02	< 5400	2300 D02,J	68 D02,J	780 D02,J	150J
Fluorene (µg/kg)	30000	8300 D02,J	< 5400	< 5500	< 1400	< 9700	< 220
Indeno(1,2,3-cd)pyrene (μg/kg)	500	50000 D02,J	220D,J	840 D02,J	57 D02,J	< 9700	20Ј
Phenanthrene (µg/kg)	100000	130000 D02	< 5400	1200 D02,J	< 1400	< 9700	1000
Pyrene (µg/kg)	100000	170000 D02	< 5400	1800 D02,J	65 D02,J	780 D02,J	270

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram  $(\mu g/kg)$ 

- NL Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.
- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.

D02 -Dilution required due to sample matrix effects.

<sup>\*</sup> Time not recorded on COC.



### Table 9C: Sediment Samples & Catch Basin Pesticides Riverview Industrial Center 5335 River Road Tonawanda, New York

Soil Sample ID		SED-2	SED-3-OF	SED-4	SED-5	SED-6	SS-1
Date	Part 375	05/13/09	05/18/09	5/18/2009	5/18/2009	05/18/09	05/13/09
Depth (ft)	Unrestricted Use	TNR*	11:45	12:00	14:00	14:30	11:40
Matrix	0.50	Solid	Solid	Solid	Solid	Solid	Solid
4,4'-DDT (2C)	3.3	130QFL,D10,J	< 5.2	< 5.3	< 2.8	< 75	2.2QFL
delta-BHC (2C)	40	< 180	< 5.2	< 5.3	< 2.8	< 75	1.2QFL,J
Dieldrin	5	< 180	< 5.2	3.8QFL,J	< 2.8	< 75	< 2.2
Endosulfan I	2400	< 180	< 5.2	< 5.3	< 2.8	46D10,QSU,QFL,J	< 2.2
Endosulfan II	2400	<180	< 5.2	< 5.3	< 2.8	96D10,QSU,QFL	< 2.2
Endosulfan II (2C)	2400	<180	< 5.2	<5.3	<2.8	<75	2.1QFL,J
Endrin (2C)	14	< 180	< 5.2	< 5.3	< 2.8	< 75	1.5QFL,J
gamma- Chlorodane (2C)	NL	< 180	< 5.2	< 5.3	< 2.8	< 75	0.070QFL,J,B

#### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram  $(\mu g/kg)$ 

- NL Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup
- B Analyte was detected in the associated Method Blank
- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
- D10 Dilution required due to sample color.
- QFL Florisil clean-up (EPA 3620) performed on extract.
- QSU Sulfur (EPA 3660) clean-up performed on extract.
- \* Time not recorded on COC.



### Table 9D: Sediment Samples & Catch Basin PCB's Riverview Industrial Center 5335 River Road Tonawanda, New York

Soil Sample ID		SED-2	SED-3-OF	SED-4	SED-5	SED-6	SS-1
Date	Part 375	05/13/09	05/18/09	5/18/09	5/18/2009	05/18/09	05/13/09
Time	Unrestricted Use	TNR*	11:45	12:00	14:00	14:30	11:40
Matrix		Solid	Solid	Solid	Solid	Solid	Solid
Aroclor-1016	100	< 35	< 52	< 53	< 28	< 19	< 22
Aroclor-1221	100	< 35	< 52	< 53	< 28	< 19	< 22
Aroclor-1232	100	< 35	< 52	< 53	< 28	< 19	< 22
Aroclor-1242	100	< 35	< 52	< 53	< 28	< 19	< 22
Aroclor-1248	100	< 35	< 52	< 53	< 28	< 19	< 22
Aroclor-1254	100	< 35	< 52	< 53	< 28	< 19	< 22
Aroclor-1260	100	<b>290QSU</b>	< 52	46QSU,J	< 28	< 19	< 22

### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are micrograms per kilogram  $\;\; (\mu g/kg)$ 

QSU - Sulfur (EPA 3660) clean-up performed on extract.

- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
- \* Time not recorded on COC.



### Table 9E: Sediment Samples & Catch Basin Metals Riverview Industrial Center 5335 River Road Tonawanda, New York

Soil Sample ID		CED 2	SED 2 OF	CED 4	CED 5	CED (	SS-1
Date	Part 375	SED-2 05/13/09	SED-3-OF 05/18/09	SED-4 05/18/09	SED-5 5/18/2009	SED-6 05/18/09	05/13/09
Time	Unrestricted	TNR*	11:45	12:00	14:00	14:30	11:40
Matrix	Use	Solid	Solid	Solid	Solid	Solid	Solid
Aluminum (mg/kg)	NL						
	-	18000	27700	18100	7540	2740	13900
Antimony (mg/kg)	NL	< 29.4	< 48.3	< 46.1	< 22.9	< 17.5	< 19.0
Arsenic (mg/kg)	13	5.0	10.8	18.9	9.0	1.7J	3.8
Barium (mg/kg)	350	162	237B	145B	119B	55.9B	114
Beryllium (mg/kg)	7.2	0.922	1.57	1.03	0.392	0.135J	0.713
Cadmium (mg/kg)	2.5	< 0.392	1.28	1.41	0.376	0.253	0.086J
Calcium (mg/kg)	NL	90700	84400B	59300B	9020B	6070B	14100
Chromium (mg/kg)	NL	32.0	50.9	29.4	11.2	5.23	17.7
Cobalt (mg/kg)	NL	16.0	24.6	15.5	7.40	2.14	10.6
Copper (mg/kg)	50	31.9	59.7	61.1	15.8	11.0	17.1
Iron (mg/kg)	NL	31200	48000B	41600B	18700B	5750B	24200
Lead (mg/kg)	63	17.3	50.7B	54.9B	13.2B	74.3B	14.4
Magnesium (mg/kg)	NL	29300	25900	25100	4730	1950	7120
Manganese (mg/kg)	1600	892	1740	954	4560D08	363	425
Mercury (mg/kg)	0.18	0.188	0.0653	0.101	0.0132J	0.0238	0.0205J
Nickel (mg/kg)	30	37.9	52.4	47.7	14.5	5.23	22.8
Potassium (mg/kg)	NL	3720	4130	2830	1040	466	1450
Selenium (mg/kg)	4	< 7.8	< 12.9	2.1J	< 6.1	< 4.7	< 5.1
Silver (mg/kg)	2	< 0.981	0.364J	0.397J	0.200J	< 0.583	< 0.633
Sodium (mg/kg)	NL	451	339J	371J	161J	78.7J	126J
Thallium (mg/kg)	NL	< 11.8	4.2J	3.4J	2.0J	0.7J	< 7.6
Vanadium (mg/kg)	NL	33.8	54.4	37.8	16.3	5.65	25.8
Zinc (mg/kg)	109	104B	302B	451B	138B	150B	67.4B

#### **NOTES:**

All sample analysis performed by Test America (Amherst, New York) in May 2009.

All units are milligrams per kilogram (mg/kg)

NL - Analyte not listed in 6 NYCRR Part 375 Environmental Remediation Programs Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives.

B - Analyte was detected in the associated Method Blank

D08 - Dilution required due to high concentration of target analyte(s)

- J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDl Concentrations within this range are estimated.
- \* Time not recorded on COC.

### APPENDIX A SOIL BORING LOGS



SUBSURFACE LOG

Soil Boring

LOCATION#

B-1

5335 River Road

Date 5/6/2009 Client/ Joh# NVCDEC

Tonawanda NY	Client/Job# NYSDEC

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-2'	0	Dark brown, fine to medium SAND and SILT. Dry; gun powder smell.	SW-SC
2-4'	0	Brown, CLAY; some coarse angular Gravel; little fine angular Gravel. Dry; no odor.	GC
4-10'	4-6' 0	Brown, Silty CLAY. Dry; no odor.	ОН
	6-10' 0	Brown, Silty CLAY. Dry; no odor.	OH
		Bottom of boring Sample Interval 0'-2'& 4'-6'	



SUBSURFACE LOG

Soil Boring

Date

LOCATION#

B-2

5335 River Road

5/6/2009

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1'	0	Brown, Silty CLAY; trace fine to coarse Sand. Saturated;no odor.	SP-SC
1-5'	0	Brown, Clayey SILT. Dry;no odor.	ОН
5-10'	0	Brown, Clayey SILT. Moist; no odor.	ОН
	0	Brown, Clayey SILT. Moist; no odor.	ОН
		Bottom of boring Sample Interval s 0'-2' & 4'-7'	



SUBSURFACE LOG

Soil Boring

Date

LOCATION#

B-3

5335 River Road

5/6/2009

	TOHAWahu	a IN T	HIGDEO	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1'	0	Brown, Silty CLAY; trace fine to coarse Saturated; no odor.	and.	ОН
1-4'	0	Light Brown, Clayey SILT; trace (+) fine to Dry; no odor.	o medium Sand.	ОН
4-8'	4-6' 0	Light Brown, Clayey SILT; trace (+) fine to Dry; no odor.	o medium Sand.	ОН
6-10'	6-10' 0	Brown, CLAY; trace fine Sand. Dry; no odor.		СН
		Bottom of boring 10'	Sample Interval None	



SUBSURFACE LOG

Soil Boring

Date

LOCATION#

B-4

5335 River Road

5/6/2009

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1'	0	Brown, fine to coarse SAND and SILT; Dry; no odor.	SP-SM
1-3'	0	Light brown, fine to medium SAND and SILT. Dry; no odor.	SP-SM
3-5'	0	Light brown, fine to medium SAND and SILT. Dry; no odor.	SP-SM
4-7'	0	Light brown, Clayey SILT; little fine to medium Sand. Dry; no odor.	ОН
7-10'	0	Light brown, Silty fine to medium SAND.  Dry; no odor.	ОН
		Bottom of boring Sample Interval None	



SUBSURFACE LOG

Soil Boring

Date

LOCATION#

B-5

5335 River Road

5/6/2009

	Tonawand	a NY Client/Job#	NYSDEC	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1'	0	Dark brown, fine to Coarse SAND and SII Some fine to medium Sand. Moist to wet; no odor.	_T;	SW-SM
1-4'	0	Light brown, Clayey SILT; Dry; no odor.		ОН
4-5'	0	Brown, Silty CLAY; occasional coarse Gra Dry; no odor.		ОН
		Bottom of boring 5'	Sample Interval None	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-6

5335 River Road

Date 5/6/2009

	Toriawariu		NISDEC	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1'	0	Brown, Silty fine to medium SAND and Common Moist to wet; no odor.	LAY.	SW-SM-CL
1-5'	0	Brown, Clayey SILT; little fine to medium Moist; no odor.	Sand.	ОН
		Bottom of boring 5'	Sample Interval None	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-7

5335 River Road

Date 5/6/2009

	Toriawariu	d N1 Client/300#		
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1'	0	Dark Brown, Silty fine to medium SAND (*) Wet; no odor.	Горsoil).	SM
1-5'	0	Brown, Silty CLAY. Wet; no odor.		ОН
		Bottom of boring	Sample Interval	
		5'	1-4'	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-8

5335 River Road

Date 5/6/2009

	Tonawand	a NY Client/Job#	NYSDEC	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1	0	Dark Brown, very fine to medium Sandy v GRAVEL (Topsoil); Moist to wet; no odor.	very fine to medium	GW-GP
1-5'	0	Brown, Silty CLAY Dry, firm.		ОН
		Bottom of boring 5'	Sample Interval None	



### SUBSURFACE LOG

Soil Boring

LOCATION#

B-9

5335 River Road

Date 5/6/2009

	TUTTAWATTU		NISDEC	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-6 inches	0	Black, organic TOP SoIL; Wet, no odor.		PEAT
6in-5'	0	Brown, fine to medium Sandy CLAY; trace to occasional fine to medium rounde Gravel. Dry; no odor.	ed to semi rounded	SP-SC
		Bottom of boring 5'	Sample Interval None	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-10

5335 River Road

Date 5/6/2009

Tonawanda NY Client/Job# NYSDEC
---------------------------------

Depth (feet)	PID (ppm)	DESCRIPTION	Middle	Soil Classification Symbols
0-1	0	TOP SOIL. Moist; no odor.		PEAT
1-5'	0	Brown, Silty fine to medium Sandy CLAY trace (-) fine to very fine angular Gravel. Dry; no odor.		SM-SC
		Bottom of boring 5'	Sample Interval None	



SUBSURFACE LOG

Soil Boring

Date

LOCATION#

B-11

5335 River Road

5/6/2009

	Toriawariu	1	NISDLC	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1	0	Dark brown, Silty fine to medium SAND. Wet; no odor.		SM
1-5'	0	Light brown to brown, fine to medium SAI trace (+) Silt. Moist; no odor.	ND and CLAY;	SC
		Bottom of boring	Sample Interval	
		5'	None	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-12

5335 River Road

Date 5/6/2009

Tonawanda NY	Client/Job# NYSDEC

	Torrawariu	a IVI CIICIU JUD#		
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-0.2'		Top Soil; organics. Wet; no odor.		PEAT
0.2-5'	0	Light brown to brown to red, CLAY; little v little Silt. Dry; No odor.	ery fine to fine Sand;	CL
		Bottom of boring 5'	Sample Interval None	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-13

5335 River Road

Date 5/13/2009

	Tonawanda	a NY Client/Job#	TODLO	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-2		Light brown, SILTY fine to Medium SAND Wet to saturated; no odor.	); Some Clay.	SM
1-5'	0	Brown-red, Silty CLAY; trace fine Sand. Wet to saturated; no odor.		ОН
		Datte was of hearing	Occupate Internal	
		Bottom of boring 5'	Sample Interval 0'-4'	



### SUBSURFACE LOG

Soil Boring

LOCATION#

B-14

5335 River Road

Date 5/13/2009

Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1	0	Dark Brown, coarse to fine SAND and SILT Gravel. Wet to saturated; no odor.	; little very fine to fine	SM
1-2.75'	0	1-2.75 Brown, CLAY and very fine to fine Sand. Wet to saturated; no odor.		SC
2.75-5.0'	0	2.75-4 Red-brown, Clayey SILT; trace very Wet to saturated; no odor.	fine to fine Sand.	ОН
		Bottom of boring S	ample Interval	
		Bottom of boring S 5' N	Sample Interval None	



Riverview Industrial Center

### SUBSURFACE LOG

Soil Boring

Date

LOCATION#

B-15

5335 River Road

5/13/2009

Tonawanda NY Client/Job# NYSDEC			
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1		Fill/Topsoil.	PEAT
1-4'	0	Brown, CLAY; with very fine to fine Sand. Dry; no odor.	SC
4-5'	0	Brown-red-gray, Silty CLAY; Some very fine to fine Sand; trace coarse angular Gravel. Moist; no odor.	ОН
		Bottom of boring Sample Interval	
		5' Cample interval 0'-4'	



## SUBSURFACE LOG

Soil Boring

LOCATION#

B-16

5335 River Road

Date 5/13/2009

Tonawanda NY	Client/Job# NYSDEC
I OHAWAHAA IN I	

Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1		Fill/Topsoil.		PEAT
1-4'	0	Gray, Silty CLAY; Some very fine to fine strace coarse angular Gravel.  Moist; no petroleum odor.	Sand;	ОН
4-5'	0	Brown-red-gray, Silty CLAY; Some very f trace coarse angular Gravel. Moist; no petroleum odor.	ine to fine Sand;	OH
	<u>!</u>	Bottom of boring 5'	Sample Interval 1-4'	



## SUBSURFACE LOG

Soil Boring

LOCATION#

B-17

5335 River Road

Date 5/13/2009

	TOHAWAHU	a N 1 SDEC	
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1		Grass and Topsoil.	
1-4'	0	Gray, Silty fine to medium SAND; occasional coarse Gravel. Moist; petroleum odor.	SM
4-5'	0	Brown-red-gray, Silty CLAY; Some very fine to fine Sand; trace coarse angular Gravel. Moist; petroleum odor.	ОН
		Bottom of boring Sample Interval 1-4'	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-18

5335 River Road

Date 5/13/2009

Tonawanda NY	Client/Job# NYSDEC
I OHAWAHAA IN I	

	l	I		
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1		Grass and Topsoil.		
1-4'	0	Gray, Silty fine to medium SAND; occasio coarse Gravel. Moist; petroleum odor.	onal	SM
4-5'	0	Brown-red-gray, Silty CLAY; Some very f trace coarse angular Gravel. Moist; petroleum odor.	ine to fine Sand;	ОН
	<u>!</u>	Bottom of boring 5'	Sample Interval None	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-19

5335 River Road

5/13/2009 Date

	Tonawanda	a NY Client/Job# NYSDEC	
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	0	Fill, brown, fine to medium Sandy CLAY; trace organics; trace Clay nodules.	
1-4'	0	Gray, Silty fine to medium SAND; occasional coarse Gravel. Moist; petroleum odor.	SM
4-5'	0	Brown-red-gray, Silty CLAY; some very fine to fine Sand; trace coarse angular Gravel. Moist; petroleum odor.	ОН
		Bottom of boring Sample Interval Sone	



SUBSURFACE LOG

Soil Boring

LOCATION#

B-20

5335 River Road

Tonawanda NY

Date 5/13/2009
Client/Job# NYSDEC

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	Not Collected	Fill, brown, fine to medium Sandy CLAY; trace organics; trace Clay nodules.  0	SW-SC
1-5'	0	Brown, Fine to medium Sandy CLAY; trace organics; trace Clay nodules.  0	SW-SC
		Bottom of boring Sample Interval 5' None	

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	Response • Service • Experience
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## SUBSURFACE LOG

Soil Boring

LOCATION#

5335 River Road

Date 5/13/2009

	Toriawariu	1	FNISDLC	
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Clas Sym	
0-1	Not Collected	Fill, brown, fine to medium Sandy CLAY; Moist; no odor.	some Silt. S	SW-
1-5'	0	Brown, fine to medium SAND and CLAY. Moist; no odor.	S	SW-
	<u> </u>	Bottom of boring 5'	Sample Interval 4-5'	

ication ols

-SC

-SC



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-1

5335 River Road

Date 5/4/2009

	Toriawariu	a N1 Client/300# N13DEC	
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	NC	Fill - subbase.	
1-2'	1000+	Black, CLAY; little (+) fine to medium Sand; Moist; strong petroleum odor.	CL
2-4'	204	Light brown, CLAY; little (+) fine to medium Sand; Moist; strong petroleum odor.	CL
4-6'	129	Brown, Clayey very fine to fine SAND; Moist to dry; strong petroleum odor.	SC
6-8'	47	6-7' brown, very fine to medium Sandy Silty CLAY; Dry; petroleum odor.	SM-SC
		7-8' brown, very coarse angular GRAVEL; Moist; petroleum odor.	GW
		Bottom of boring Sample Interval 1'-3'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-2

5335 River Road

Date 5/4/2009

	Tonawand	a NY Client/Job# NYSDEC	
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1		Fill - subbase.	
1-2'	Collected 4.5	Brown, Silty SAND; trace very fine angular Gravel ; Moist; slight petroleum odor.	SM
2-5'	2.6	Brown, Silty CLAY; trace (+) very fine to fine Sand; Moist; slight petroleum odor.	ОН
5-7'	0.1	Brown, Silty CLAY; trace (+) very fine to fine Sand; Moist; no odor.	ОН
7-9'	0.1	Brown, Silty CLAY; trace (+) very fine to fine Sand; Dry; No odor.	ОН
	<u> </u>	Bottom of boring Sample Interval 1'-2'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-3

5335 River Road

Date 5/4/2009

Tonawanda NY	Client/Job# NYSDEC
I OHAWAHAA IN I	

	Tollawallu	a IVI Client/Job# IVI JDEC	Onil Olanaifiantian
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	0	Fill - subbase.	
1-3'	0	Brown, Silty fine SAND. Moist; no petroleum odor.	SM
3-5'	0	Brown, Silty CLAY; trace very fine to fine Sand. Dry; no odor.	ОН
5-8'	5-6' 0	Brown, Clayey SILT; trace (-) very fine to fine Sand. Dry; no odor.	ОН
	6-8' 0.1	Brown, Clayey SILT; trace (-) very fine to fine Sand. Dry; no odor.	ОН
	•	Bottom of boring Sample Interval None	



Riverview Industrial Center Location

SUBSURFACE LOG

Soil Boring

LOCATION#

SB-4

5335 River Road

Date 5/4/2009

Tonawanda NY			Client/Job# NYSDEC	
Depth (feet)	PID (ppm)	DESCRIPTION		

Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1	0	Asphalt and subbase.		
1-3'	1-2' 0 2-3' 7.2	Brown, Clayey SILT; Trace very fine to fine Sa Moist; no odor.	nd.	ОН
3-5'	3.5	Brown, Clayey SILT; Trace very fine to fine Sa Moist; no odor.	nd.	ОН
5-8'	0.1	Brown, Clayey SILT; Trace very fine to fine Sa Moist; no odor.	nd.	ОН
		Bottom of boring Sam 8' None	ple Interval	



SUBSURFACE LOG

Soil Boring

Date

LOCATION#

SB-5

5335 River Road
Tonawanda NY

Client/Job# NYSDEC

5/4/2009

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	0	Asphalt and subbase.	
1-3'	75	Black-gray, Silty very fine to fine SAND. Moist; petroleum odor.	SM
3-5'	36	Black-gray, Silty very fine to fine SAND. Moist to wet; petroleum odor.	SM
5-8'	8	Brown-gray, Silty CLAY. Moist to slightly moist; petroleum odor.	ОН
		Bottom of boring Sample Interval 1-3'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-6

5335 River Road

Date 5/4/2009

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	0	Asphalt and subbase.	
1-3'	9.2	Dark gray, Silty CLAY. Moist; SVOC petroleum odor.	ОН
3-5'	8.1	Light gray, very fine to fine Sandy SILT. Moist; slight petroleum odor.	SM
5-7'	8.0	Brown-red; Silty CLAY. Moist to slightly moist; slight petroleum odor.	ОН
7-9'	1.0	Light brown, Clayey SILT; trace (+) very fine to fine Sand. Dry; no petroleum odor.	ОН
		Bottom of boring 9' Sample Interval 1'-4'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-7

5335 River Road

Date 5/4/2009

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	0	Asphalt and subbase.	
1-3'	270	Brown, Clayey SILT; Some (-) very fine to fine Sand. Moist; petroleum odor.	ОН
3-5'	160	Light gray, very fine to fine Sandy SILT. Moist; petroleum odor.	SM
5-7'	32	Light gray, very fine to fine Sandy SILT. Moist; petroleum odor.	SM
7-9'	10	Light gray, very fine to fine Sandy SILT. Moist; petroleum odor.	SM
		Bottom of boring  9'  Sample Interval 1'-3'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-8

5335 River Road

Date 5/4/2009

	Toriawaria	a ivi Chembook			
Depth (feet)	PID (ppm)	DESCRIPTION			Soil Classification Symbols
					- ,
0-1	0	Asphalt and subbase			
1-2'	88	Brown, Silty CLAY; little very fine to fine S Moist; Petroleum odor.	Sand.		ОН
2-4'	72	Light gray, very fine to fine Sandy SILT. Moist; petroleum odor.			SM
4-5'	11.5	Red, Silty CLAY; trace fine to medium Sa Moist; sight petroleum odor.	ind.		ОН
5-9'	10	Red, Silty CLAY; trace fine to medium Sa Moist; sight petroleum odor.	nd.		ОН
		Bottom of boring	Sample Interva	al	
		9'			mple 8D-5'-9'



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-9

5335 River Road

Date 5/4/2009

Tonawanda NY	Client/Job# NYSDEC

Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1	0	Asphalt and subbase.		Cyscie
1-3'	55	Brown, fine to medium Sandy CLAY; Moist; petroleum odor.		SP-SC
3-5'	45	Brown, Clayey SILT; some fine to medium Sand; Moist; petroleum odor.		ОН
5'	10	Refusal at 5 feet.		
		Bottom of boring 5'	Sample Interval 1'-4'	



SUBSURFACE LOG

Soil Boring

Date

LOCATION#

SB-10

5335 River Road

5/4/2009

Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1	0	Asphalt and subbase.		
1-3'	40	Brown, fine to medium Sandy CLAY; Moist; petroleum odor.		sw-sc
3-5'	140	Brown, Clayey SILT; some fine to mediun Moist; petroleum odor.	n Sand;	ОН
5-7'	0	Brown, Clayey SILT; some fine to mediun Moist; no petroleum odor.	n Sand;	ОН
7-9'		Brown, very coarse angular GRAVEL; Moist; no petroleum odor.		GP
		Bottom of boring	Sample Interval	
		9'	None	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-11

5335 River Road

Date 5/4/2009

	Tonawand	a NY Client/Job	# NYSDEC	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1 1-5'	0 1-3' 0	Asphalt and subbase.  Brown, CLAY; Some Silt trace fine to me	dium Sand	СН
1-5	Ŭ	Moist; no petroleum odor.	dum Sand.	GII
	3-6' 0	Brown, CLAY; Some Silt trace fine to me Moist; no petroleum odor.	dium Sand.	СН
		Bottom of boring 5'	Sample Interval 3'-5'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-12

5335 River Road

Date 5/4/2009

		a IVI Glienios	JOH NI JOLC	0 11 01 11 11
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
				,
0-1	0	Asphalt and subbase.		
1-3'	355	Black, SILTY fine to medium SAND; Moist to wet; petroleum odor.		SM
3-5'	145	Black, SILTY fine to medium SAND; Moist; petroleum odor.		SM
5-7'	120	Brown, fine to medium SAND. Moist; petroleum odor.		SW
7-9'	65	Brown, fine to medium SAND. Moist; petroleum odor.		SW
9-10'	0	Brown, fine to medium SAND. Moist to dry; no petroleum odor.		SW
		Bottom of boring	Sample Interval	
		10'	1'-3'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-13

5335 River Road

Date 5/4/2009

	Tonawanda NY Client/Job# NYSDEC				
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols		
0-1	NC	Asphalt and subbase.			
1-4'	87	Gray, Silty CLAY; Some (+) fine Sand. Wet; petroleum odor.	CL		
4-5'	1.7	Brown, fine to medium GRAVEL and SAND. Moist to wet; slight petroleum odor.	GP-SP		
5-7'	0	Brown, CLAY; trace (-) fine Sand. Moist to dry; no petroleum odor.	СН		
7-8'	0	Brown, CLAY; trace (-) fine Sand. Moist to dry; no petroleum odor.	СН		
		Bottom of boring Sample Interval 1'-4'	<u> </u>		



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-14

5335 River Road

Date 5/4/2009

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	NC	Asphalt and subbase.	
1-4'	60	Brown-gray, Silty fine to medium SAND. Wet; petroleum odor.	SP-SM
4-5'	0	Brown, fine to medium GRAVEL and SAND. Dry; no odor.	GP-SP
		Bottom of boring Sample Interval 5' 1'-4'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-15

5335 River Road

Date 5/4/2009

PID (ppm) 0 0	DESCRIPTION Asphalt.	Well Completion Data
	Asphalt.	
0		
	Brown red, Silty CLAY and very fine to fine Sand. Dry; no odor.	SW-SM-SC SW
	Brown, very coarse to fine SAND. Dry; no odor.	SW
0	Red brown, Clayey SILT; trace fine Sand. Dry; no odor.	ОН
	Red brown, Clayey SILT, trace fine Sand. Dry, no odor.	
		Red brown, Clayey SILT, trace fine Sand.



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-16

5335 River Road

Date 5/5/2009

	Tonawanda NY Client/Job# NYSDEC			
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1'	0	Asphalt subbase.		
1-4'	77	Gray, Silty CLAY; some very fine to fine Sangular Gravel. Dry; petroleum odor	Sand; trace coarse	ОН
4-5'	44	Gray, Silty CLAY; some very fine to fine Sand; trace coarse angular Gravel. Dry; petroleum odor		ОН
5-9'	5-7' 15 7-9' 10	Dry; petroleum odor  Red-brown, Silty CLAY; some (-) fine to coarse Sand; occasional coarse angular Gravel.  Dry; slight petroleum odor.		ОН
		Bottom of boring	Sample Interval	
		9'	1'-4'	



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-17

5335 River Road

Date 5/5/2009

	Tonawanda NY Client/Job# NYSDEC				
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols		
0-1'	0	Asphalt subbase.			
1-4'	488	Gray, Silty fine to medium SAND; occasional coarse angular Gravel. Dry; strong petroleum odor.	SM		
4-5'	758	Red-brown, Silty fine to medium SAND; occasional coarse angular Gravel. Dry; petroleum odor.	SM		
5-6'	433	Red, Silty CLAY; trace (-) fine Sand. Dry; petroleum odor.	ОН		
6-8'	235	Red, Silty CLAY; trace (-) fine Sand. Dry; petroleum odor.	ОН		
8-10'	195	Red, Silty CLAY; trace (-) fine Sand. Dry; petroleum odor.	ОН		
10-12'	44	Red, Silty CLAY; trace (-) fine Sand. Dry; petroleum odor.	ОН		
	Bottom of boring 12' Sample Interval 1-4' & 4'-5' due to soil volumes				



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-18

5335 River Road

Date 5/4/2009

	Tonawanda NY Client/Job# NYSDEC				
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols		
0-1'	0	Asphalt subbase.			
1-4'	250	Gray, Silty fine to medium SAND; occasional coarse angular Gravel. Dry; strong petroleum odor.	SM		
4-5'	225	Red-brown, Silty fine to medium SAND; occasional coarse angular Gravel. Dry; petroleum odor	SM		
5-7'	110	Red, Silty CLAY; trace (-) fine Sand. Dry; petroleum odor.	ОН		
5-8'	0	Red, Silty CLAY; trace (-) fine Sand. Dry; no petroleum odor.	ОН		
8-12'	0	Red, Silty CLAY; trace (-) fine Sand. Dry; no petroleum odor.	ОН		
		Bottom of boring 12' Sample Interval 1'-4'			



## SUBSURFACE LOG

Soil Boring

LOCATION#

5335 River Road

Date 5/4/2009

Tollawalida NT Gliefiti 300# NT GDEG				
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classif Symbo	
0-1'	0	Asphalt subbase.		
1-4'	280	Brown, Silty fine to medium SAND; trace (+) fine angular Gravel. Moist; petroleum odor.	SM	
4-6'	20	Brown, Silty fine to medium SAND; trace (+) fine angular Gravel. Moist; slight petroleum odor.	SM	
6-8'	10	Brown, fine to medium Sandy SILT; trace very fine to fine Gravel. Moist; no petroleum odor.	SM	
8-12'	0	Brown, fine to medium Sandy SILT; trace very fine to fine Gravel.  Moist; no petroleum odor.	SM	
		Bottom of boring 12' Sample Interval 1'-4'		

ication ols



SUBSURFACE LOG

Soil Boring

LOCATION#

SB-20

5335 River Road

Date 5/4/2009

	Tonawanda NY Client/Job# NYSDEC			
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols	
0-1'	0	Fill.		
1-4'	0	Brown, fine to medium Sandy CLAY; trace (+) Clay Nodules; trace organics. Moist; no petroleum odor.	SC	
4-8'	0	Light Brown, Sandy fine to medium CLAY; trace (+) Clay nodules; trace organics. Moist; no petroleum odor.	SC	
8-12'	0	Light Brown, Sandy fine to medium CLAY; trace (+) Clay nodules; trace organics. Moist; no petroleum odor.	SC	
		0 Sample collected 4-5'		
		Bottom of boring 12' Sample Interval 1-4'		



Riverview Industrial Center Location

5335 River Road

## SUBSURFACE LOG

Soil Boring

Date

5/4/2009

LOCATION#

SB-21

Tonawanda NY Client/Job# NYSDEC				
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols	
0-1'	0	Fill.		
1-5'	0	Brown, fine to medium SAND and CLAY. Moist; no petroleum odor.	SC	
5-8'	0	Brown, Clayey fine to medium SAND; trace Silt; trace (-) very fine angular Gravel.  Moist; no petroleum odor.	SC	
8-12'	0	Brown, Clayey fine to medium SAND; trace Silt; trace (-) very fine angular Gravel.  Moist; no petroleum odor.	SC	
		Bottom of boring Sample Interval 12' 4'-6'		



SUBSURFACE LOG Soil Boring LOCATION#

SB-22

5335 River Road

Date 5/4/2009

	Toriawanu	a NT CIEHUJOD# NT SDEC	
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1'	0	Fill.	
1-3'	0	Brown-grey, fine to medium SAND and CLAY. Moist; no petroleum odor.	SC
3-5'	0	Reddish-brown silty CLAY. Moist; slight odor.	SC
5-8'		Reddish-brown silty CLAY Moist; slight odor 5-6'	SC
		Bottom of boring Sample Interval 8 4'-6'	



Riverview Industrial Center Location

5335 River Road

## SUBSURFACE LOG

Soil Boring

LOCATION# SEP-SB-1 SEP- NW

Date 5/4/2009

Tonawanda NY

Client/Job# NYSDEC

Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols
0-1	NC	Fill	
1-5'	0	Brown-red, CLAY; little Silt; trace very fine to fine Dry; no petroleum odor.	e Sand. CL
5-8'	0	Red-brown, CLAY; trace (+) very fine to fine Sar occasional coarse angular Gravel; hard packed. Dry; no petroleum odor.	
		Bottom of boring Samp 8' None	le Interval



Location

Riverview Industrial Center

SUBSURFACE LOG Soil Boring

LOCATION#

SEP-SB-2 SEP-SW

5335 River Road

Date 5/4/2009

	Tollawarida IVI Ciletit/305# IVI 3DEC					
Depth (feet)	PID (ppm)	DESCRIPTION	Soil Classification Symbols			
0-1	NC	Fill.				
1-5'	0	Brown-red, CLAY; little Silt; trace very fine to fine Sand. Dry; no petroleum odor.	CL			
5-8'	0	Hard packed red-brown, CLAY; trace (+) very fine to fine Sand; occasional coarse angular Gravel.  Dry; no petroleum odor.	CL			
		Bottom of boring Sample Interval None				



## SUBSURFACE LOG

Soil Boring

LOCATION# SEP-SB-3 SEP-SE

5335 River Road

Date 5/4/2009

	Tonawanda NY Client/Job# NYSDEC					
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols		
0-1	NC	Fill.				
1-5'	0	Brown-red, CLAY; little Silt; trace very fine to Dry; no petroleum odor.	fine Sand.	CL		
5-8'	0	Hard packed red-brown, CLAY; trace (+) very occasional coarse angular Gravel. Dry; no petroleum odor.	r fine to fine Sand;	CL		
		Detterm of heavier				
E		Bottom of boring Sar 8' Nor	mple Interval ne			



SUBSURFACE LOG

Soil Boring

LOCATION# SEP-SB-4 SEP-NE

5335 River Road

Date 5/4/2009

	Tonawand	a NY Client/Job#	NISDLO	
Depth (feet)	PID (ppm)	DESCRIPTION		Soil Classification Symbols
0-1	NC	Fill.		
1-5'	0	Brown-red, CLAY; little Silt; trace very fine Dry; no petroleum odor.	e to fine Sand.	CL
5-8'	0	Hard packed red-brown, CLAY; trace (+) voccasional coarse angular Gravel.  Dry; no petroleum odor.	very fine to fine Sand;	CL
			Sample Interval None	

# APPENDIX B

**TEST PIT LOGS** 



SUBSURFACE LOG

Test Pit

LOCATION#

TP-1

5335 River Road

Date 5/11/2009

	Toriawariu		
Depth (feet)	PID (ppm)	DESCRIPTION	
0-1.5'	0	Grass Brown, CLAY. Moist; no odor.	
1.5-6.5'	0	Red-brown, CLAY; trace Silt. Dry; no odor.	
6.5-7.5'	0	Brown, CLAY; some fine to medium rounded Gravel. Dry; no odor.	
7.5-10'	0	Brown, CLAY; some fine to medium rounded Gravel; occasional sub angular to rounded Gravel. Dry; no odor.	
		Bottom of test pit 10'	Sample Interval None



SUBSURFACE LOG

Test Pit

LOCATION#

TP-2

5335 River Road

Date 5/11/2009

Tonawanda NY	Client/Job# NYSDEC

	Toriawariu	Client/30b# N13DEC	
Depth (feet)	PID (ppm)	DESCRIPTION	
0-1.75'	0	Biologic swamp substrate, fine cherty GRAVEL. Saturated; no odor.	
1.75-7.5	0	Red-brown, CLAY; trace fine Sandy Silt. Dry; no odor.	
7.5-9.5'	0	Red-brown, CLAY; some fine to medium rounded Gravel. Dry; no odor.	
		Bottom of test pit Sample Interval 9.5	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-3

5335 River Road

Date 5/11/2009

	Toriawariu	CHERIOSOD# NTODEC	
Depth (feet)	PID (ppm)	DESCRIPTION	
0-1.5'	0	Grass and Brown, CLAY. Moist; no odor.	
1.5' 1.5-3'	0	Geo-fabric at 1.5 feet; detritus concrete blocks and steel. Wet; no odor .	
3-4.5'	0	Brown, CLAY; some fine to medium rounded Gravel. Dry; no odor.	
4.5-6.5'	180	Black, Silty CLAY; occasional detritus and trash. Moist; biologic and petroleum based fuel odor.	
6.5-9.5'	0	Red-brown, CLAY; some fine sand; fine to coarse subangular to subrounded Gravel; Moist; no odor.	
		Bottom of test pit Sample Interval 4.5-6.5'	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-4

5335 River Road

Date 5/11/2009

	Toriawarida IVI Glieriu Job# IVI SDEG			
Depth (feet)	PID (ppm)	DESCRIPTION		
0-0.5'	0	Grass and Red-brown, fine to coarse Sar Moist; no odor.	dy CLAY.	
5-6'	27.5	Dark brown-black, fine to coarse Sandy CLAY; little coarse to very fine angular Gravel. Moist; petroleum/solvent odor.		
6-10'	0	Red-brown, CLAY; some fine to coarse subangular Gravel. Dry; no odor.		
		Bottom of test pit	Sample Interval	
		10'	5-6' WS-4P collected in the TP-4 area	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-5

5335 River Road

Date 5/11/2009

Depth (feet)	PID (ppm)	DESCRIPTION	
0-0.6'	0	Brown; some fine to coarse GRAVEL and Silty fine to coarse SAND. Moist; no odor.	
.5-4.5'	90	Dark brown, CLAY; some fine to medium rounded Gravel densely packed. Moist; petroleum odor.	
4.5-6	0	Dark brown, CLAY; some fine to medium rounded Gravel densely packed. Moist; petroleum odor.	
6-9'	0	Red-brown, CLAY; some fine to medium Sand; some Silt; subrounded Gravel at 6.1-6.4 feet. Dense, dry; no odor.	
		Bottom of test pit 9'	Sample Interval



SUBSURFACE LOG

Test Pit

LOCATION#

TP-6

5335 River Road

Date 5/11/2009

	Tonawand	a NY Client/Job# NYSDEC	
Depth (feet)	PID (ppm)	DESCRIPTION	
0-0.5'	0	Brown, some fine to coarse GRAVEL and Silty fine to coarse SAND; Moist; no odor.	
0.5-5'	90	Dark brown, CLAY; some fine to medium rounded Gravel. Moist; petroleum odor, densely packed.	
5-7'	5-6' 600	Dark brown, CLAY; some fine to medium rounded Gravel. Moist; petroleum odor, densely packed.	
6-7'	6-7' 600	Red-brown, CLAY; some fine to medium Sand; some Silt. Subrounded Gravel at 6.1-6.4 feet. Dense, dry; no odor.	
6-10'	100	Red-brown, CLAY; some fine to medium Sand; some Silt; soil may have been reworked due to steel and plastic trash located in the soil matrix. Dense, slightly moist; petroleum odor.	
10-12'	19	Red-brown, CLAY; some fine to medium Sand; some Silt. Moist; petroleum odor.	
12-14'	0	Red-brown, CLAY; some fine to medium Sand; some Silt. Moist; petroleum odor.	
		Bottom of test pit Sample Intervals 14' 5'-7' 12'-14'	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-7

5335 River Road

Date 5/12/2009

	Toriawariu	CHERIOSOD# NT SDEC	
Depth (feet)	PID (ppm)	DESCRIPTION	
0-1.5'	0	SLAG; fine to coarse angular to semi-angular GRAVEL and fine to coarse SAND; no odor.	
0.5-4'	0	Red-brown, CLAY; trace of fine to medium Sand; trace coarse to fine angular to sub rounded Gravel. Moist; no odor.	
4.75-6'	0	Blue-green, SLAG. Dry; strong sulfur odor.	
6-10'	0	Red-brown, CLAY. Dry; slight petroleum odor decreasing with depth.	
		Bottom of test pit Sample Interval 10' None	



## SUBSURFACE LOG

Test Pit

LOCATION#

TP-8

5335 River Road

Date 5/12/2009

	Total and Title			
Depth (feet)	PID (ppm)	DESCRIPTION		
0-1'	0	Brown, vegetation and Silty Sandy LOAM; Moist; no odor.		
1-10'	0	Red-brown, CLAY; trace of fine to mediur to sub rounded Gravel.  Moist; no odor.	m Sand; trace coarse to fine angular	
		Bottom of test pit 10'	Sample Interval None	
		10	110110	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-9

5335 River Road

Date 5/12/2009

	TUTTAWATTU	d 111 Ollotti dobii	FNIODEC
Depth (feet)	PID (ppm)	DESCRIPTION	
0-1'	0	Brown, vegetation and Silty Sandy LOAN Moist; no odor.	1.
1-10'	0	Red-brown, CLAY and coarse to fine angular Gravel to sub rounded Gravel.  Moist; no odor.	
	0		
		Bottom of test pit	Sample Interval
		10'	None



## SUBSURFACE LOG

Test Pit

LOCATION#

5335 River Road

Date 5/12/2009

Depth (feet)	PID (ppm)	DESCRIPTION	
0-4"	0	Light brown, Sandy SILT. Moist, no odor.	
4"-6'	2	Dark brown to red, CLAY; trace fine to medium Sand and coarse to fine angular to rounded Gravel.  Moist, no odor.	
6-9'	100+	Brown, fine to medium SAND and GRAVEL; amount increases with depth; fine to confidence of Gravel; amounts decrease with depth.  Moist, no odor.	
9-10'	1000+	Dark gray, fine to medium SAND increases with o Strong petroleum/diesel odor .	depth, while fine to coarse Gravel o
		Bottom of test pit Sample 10' 6'-10'	e Interval

TP-10

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lecreases.



SUBSURFACE LOG

Test Pit

LOCATION#

TP-11

5335 River Road

Date 5/12/2009

Depth (feet)		DESCRIPTION	
0-1.5	0	Dark brown, Silty CLAY and fine to coarse SAND.	
		Moist, no odor.	
1.5-10	0	Red to dark brown, CLAY and angular GR trace fine to medium Sand.	RAVEL;
10-11'	46	Dark brown to red, CLAY and light gray Sl	ILT.
		Bottom of test pit	Sample Interval
			None



SUBSURFACE LOG

Test Pit

LOCATION#

TP-12

5335 River Road

Date 5/12/2009

	Toriawariu	d IVI Client/300# IVI 3DEC		
Depth (feet)	PID (nnm)	DESCRIPTION		
0-2"	7	Dark red-brown, CLAY.		
2"-2'	0	Dark red-brown, CLAY.		
2-4'	34	Dark red-brown, CLAY; trace fine Sand; trace angular coarse Gravel.		
4-7'	5	Dark red-brown, CLAY; trace fine Sand; trace angular coarse Gravel.		
7-10'	0	Dark red-brown, CLAY; trace fine Sand; trace angular coarse Gravel.		
		Bottom of test pit Sample Interval		
		10' None		

7	OP-TECH*
	OI - I LOII
40	Response • Service • Experience

SUBSURFACE LOG

Test Pit

LOCATION#

TP-13

5335 River Road

Date 5/12/2009

Toriawariu	d IVI	
PID (ppm)	DESCRIPTION	
	Brown, fine to coarse angular GRAVEL.	
	Moist; no odor.	
	Bottom of test pit Sample Interval 6"-2'	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-14

5335 River Road

Date 5/13/2009

	Tonawand	a NY Cilent/Job# NYSDEC	
Depth (feet)		DESCRIPTION	
0-0.75'	7	Dark brown, Silty LOAM; trace fine to medium Clay.  Moist; no odor.	
.75'-6'	0	Detritus FILL materials, metallic and wood, paper products; slight solvent odor.	
6-9'	0	Dark brown-red, CLAY; trace fine to medium Sand; trace coarse to very fine Gravel; trace gray Silt stringers in Clay; tight matrix. slight solvent odor.	
4-7'	5	Dark brown-red, CLAY; trace fine to medium Sand; trace coarse to very fine Gravel; trace gray Silt stringers in Clay; tight matrix. slight solvent odor.	
7-10'	0	Dark brown-red, CLAY; trace fine to medium Sand; trace coarse to very fine Gravel; trace gray Silt stringers in Clay; tight matrix.	
		Bottom of test pit Sample Interval 10' None	



## SUBSURFACE LOG

Test Pit

LOCATION#

TP-15

5335 River Road

Tonawanda NY

Date 5/13/2009
Client/Job# NYSDEC

Depth (feet)	PID (ppm)	DESCRIPTION		
0-0.5"	7	Dark red-brown, CLAY; trace fine rounded Gravel; trace fine Sand.		
		No odor.		
0.5-5.5	0	Red-brown, CLAY; trace fine Sand and rounded fine Gravel. No odor.		
5.5-6.5'	0	Brown, fine to coarse GRAVEL. Wet; No odor.		
6.5-8'	0	Red-brown, CLAY; trace fine Sand and rounded fine Gravel. No odor.		
7-10'	0	Red-brown, CLAY; trace fine Sand and rounded fine Gravel. No odor.		
		Bottom of test pit Sample Interval		
		10' None		
		I		



SUBSURFACE LOG

Test Pit

LOCATION#

TP-16

5335 River Road

Date 5/13/2009

		a IVI Cheritaod# IVI ODEC
Depth (feet)	PID (ppm)	DESCRIPTION
0-5"	0	Dark brown, swamp material; biologic odor.
0.5'-3'	8	Brown-red, CLAY; trace organic material.
		slight fuel odor, smell increases with depth.
3-4'	21	Brown-red, CLAY; trace organic material.
4-7'	5	Brown-red, CLAY; trace organic material.
4-7	3	blown-red, olar, trace organic material.
7 401	_	
7-10'	0	Brown-red, CLAY; trace organic material.
		Bottom of test pit Sample Interval
		10' None



SUBSURFACE LOG

Test Pit

LOCATION#

TP-17

5335 River Road

Date 5/13/2009

	Tonawana	GIICHBOODH INTODEO	
Depth (feet)	PID (ppm)	DESCRIPTION	
0-0.5"	0	Dark brown, organic PEAT; trace fine Gravel.	
		Low moisture; no odor.	
5"-4'	0	Dark brown to red, CLAY; trace medium to fine angular Gravel.	
		Dry; no odor.	
4-7.5'	0	Dark brown, organic PEAT; trace fine Gravel.	
4-7.5		Low moisture; no odor.	
		large amounts of debris (concrete, conduit and steel pieces)	
7.5-13'	0	Dark brown to red, CLAY; trace medium to fine angular Gravel.	
		Dry; no odor.	
		Dettem of test nit	
		Bottom of test pit Sample Interval  None	
		10110	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-18

5335 River Road

Date 5/14/2009

Tollawalida IVI Gliefit/300# IVI 3DEG			
Donth (for the	DID (a.e.)	DECODIDATION	
Depth (feet)	PID (ppm)	DESCRIPTION	
025'	0	Brown, fine to coarse GRAVEL and Silty fine to medium SAND.	
0.25-3	2 3' 12	Red-brown, CLAY; trace fine Sand; trace Silt. Tight, dry; no odor, plant matter present.	
4-6'	26	Red-brown, CLAY; trace fine Sand; trace Silt. Tight soils, dry; fuel odor.	
6-8'	54	Red-brown, CLAY; trace fine Sand; trace Silt. Petroleum odor.	
8-10'	84	Red-brown, CLAY; trace fine Sand; trace Silt. Petroleum odor.	
10-13'	98	Red-brown, CLAY; trace fine Sand; trace Silt. Strong petroleum odor.	
		Bottom of test pit Sample Interval 13' None	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-19

5335 River Road

Date 5/14/2009

Toriawariaa 141 Olichioodii 141 Obeo				
Depth (feet)	PID (ppm)	DESCRIPTION		
075'	0	Brown, coarse to medium GRAVEL; debris, metal pieces and slag.		
	0.75	Red-brown, CLAY; some fine to coarse Gravel.		
	8	Moist; fuel odor, reworked soil.		
0.75-4'	12	Red-brown, CLAY; some fine to coarse Gravel.		
		Moist; fuel odor, reworked soil.		
4-6'	98			
4-0	90	Black, CLAY; some fine to coarse Gravel. Strong petroleum odor.		
6-8.5'	46	Red-brown, CLAY; some fine to coarse Gravel. Moist; strong fuel odor.		
8.5-9.5'	50	Red-brown, CLAY; some fine to coarse Gravel. Moist; strong fuel odor. Drain pipe located at 9 feet below grade.		
		Bottom of test pit Sample Interval		
		9.5' 4'-6'		



SUBSURFACE LOG

Test Pit

Date

LOCATION#

TP-20

5335 River Road

5/14/2009

Tollawalida NT Client/30b# NTSDEC			
Depth (feet)	PID (ppm)	DESCRIPTION	
0-1'	0		
0-1	U	Dark brown, fine to coarse GRAVEL and SAND.	
		Moist; no odor.	
1-5'	0	Dark brown, fine to medium Sandy CLAY; some coarse Gravel and Sand. Moist; no odor; large pieces of concrete.	
5-9'	0	Dark brown, fine to medium Sandy CLAY; some coarse Gravel and Sand. Moist; no odor; decreasing amounts of concrete.	
9'	5	Dark brown, fine to medium Sandy CLAY; some coarse Gravel and Sand. Dry; no odor.	
9-9.5'	10	Red, CLAY; tight. Dry; no odor.	
	-	Bottom of test pit Sample Interval	
		9.5' None	



SUBSURFACE LOG

Test Pit

LOCATION#

TP-21

5335 River Road

Date 5/14/2009

	TUTTAWATTU	a INT GITETIV JOD#	
Depth (feet)		DESCRIPTION	
0-1'	0	Fill, brown, fine to coarse GRAVEL and S Dry with concrete pieces.	AND;
1-4'	136	Brown, fine to coarse GRAVEL and SANI Saturated; strong fuel odor; liquid phase h	
4'	259	Brown, fine to coarse GRAVEL and SANI Saturated; strong fuel odor; liquid phase h	
		Bottom of test pit 4'	Sample Interval 1'-4'

## APPENDIX C

MONITORING WELL BORING LOGS

&

WELL CONSTRUCTION DIAGRAMS



SUBSURFACE LOG MONITORING WELL LOG LOCATION# MW-002R

5335 River Road

Date 6/2/2009Reinstalled

Grout/Cement 0-6'

Tonawanda NY

Client/Job# NYSDEC

Bentonite 6-7'

7-32'

8-30'

Sand Well Screen interval

	I	·	VCII OCICCII IIICI VAI	0-30
Depth (feet) -			Soil	Well
BLOW COUNTS	DID (nam)	DECCRIPTION	Classification Symbols	
		DESCRIPTION	Symbols	Data
0-1	NC	Dark brown, coarse to fine SAND and SILT; little very fine to fine	014	
		Gravel.	SM	
	4 01	Wet to saturated; no odor.		
1 4!	1-3' 355	1.2.75 brown CLAV and you fine to fine CAND	sc	
1-4'	333	1-2.75 brown, CLAY and very fine to fine SAND.  Moist; petroleum odor.	30	
	3-5'	2.75-4 Red brown, CLAYEY SILT; trace very fine to fine Sand.		
	145	Moist; petroleum odor.		
<i>4</i> -8'	143	imoist, petroleum odor.		
7 0	5-7'	Red-brown, CLAYEY SILT; trace very fine to fine Sand.	ОН	
8-12'	120	Moist; petroleum odor.	0.1	
0 12	7-9'	Red-brown, CLAYEY SILT; trace very fine to fine Sand.	ОН	
	0	Dry; no odor.	011	
	9-12'	Red-brown, CLAYEY SILT; trace very fine to fine Sand.	ОН	33333
	0	Dry; no odor.	On	33333
12-14'	85	12-13' Red brown, CLAY; Some (-) fine to medium Sand; trace Silt.		300000
5,8,11,14	0.5	Moist to dry; petroleum odor.	CL	l
5,0,11,14		13-14' Brown, hard packed CLAYEY very fine to fine SAND.	OL I	
		Moist to dry; petroleum odor.	SC	l:::::  :::::
14-16'	0	Red-brown, CLAY; some (-) fine to medium Sand; trace Silt.	30	
9,8,9,11	ľ	Moist to dry; no odor.	СН	
16-18'	0	1 ***	CIT	
10- <i>18</i> 10,13,	0	16-17.5' Red brown, CLAY; Some (-) fine to medium Sand; trace	CL	
10, 13,	0	Silt. Moist to dry; no petroleum odor.  17.5-18' Brown, CLAY; little very fine angular Gravel; trace very fine	CL	33333
	0		CI	
10.001	0	Sand. Moist to dry; no petroleum odor.	CL	33333
18-20'	0	Brown, fine GRAVEL; trace (+) fine angular Gravel.		30000
4705	0	Moist to dry no petroleum odor.	0144	300000
4,7,9,5	0	Brown, CLAY; trace (-) fine angular Gravel; trace (-) very fine	GW	l
		to fine Sand.	CL	
00.001	_	Moist to wet; no petroleum odor.		
20-22'	0	20-21' Brown, CLAY; Some (-) very fine to fine Sand; trace Silt;		
10.10		Moist to dry; no petroleum odor.		
10,12		21-22' Brown, CLAY; little very fine Sand; occasional fine angular;	OH	
16,17	•	Gravel. Moist to dry; no petroleum odor.	CL	
22-24'	0	Brown, CLAY; Some (-) very fine to fine Sand; trace Silt;		33333
4,7,12,15		occasional very fine to fine angular Gravel.	CL	
	_	Dry; no petroleum odor.		
24-26'	0	Red-brown, SILTY CLAY; trace very fine Sand; trace (-) fine		
3,5,8,1		angular Gravel. Moist; no petroleum odor.	ОН	
	_			
26-28'	0	Brown, SILTY CLAY; trace very fine angular Gravel; trace		
8,10,15,16		very fine to fine Sand.	ОН	
		Moist; no petroleum odor.		
28-30'	0	Brown; SILTY CLAY; trace very fine angular Gravel; trace		
3,5,9,5		very fine to fine Sand. Moist; no petroleum odor.	ОН	
30-32'	0	Brown, SILTY CLAY; trace very fine angular Gravel; trace	l l	
10,12		very fine to fine Sand.	ОН	
13,15		Moist; no petroleum odor.		
1	I			I 500000 I 500000 I

	Bottom of boring 32'	Sample Interval 5'-7'
-		



5335 River Road

Tonawanda NY

SUBSURFACE LOG Riverview Industrial Center MONITORING WELL LOG

> 5/8/2009 Date

Client/Job# NYSDEC

LOCATION# MW-005

Grout/Cement 0-6'

> 6-7' Bentonite

> > Sand 7-30'

Well Screen interval 8-30'

		VV	ell Screen interval	8-30
Depth (feet) -			Soil	Well
BLOW			Classification	Completion
COUNTS	PID (ppm)	DESCRIPTION	Symbols	Data
0-2'	0	Dark brown-red, fine to medium SAND and CLAY;	SC	
4,4,6,7		trace organics. Dry; no petroleum odor.		
2-4'	0	Light brown, CLAY; trace very fine Sand;	CL	
3,3,3,4		trace organics. Dry; no petroleum odor.		
4-6'	0	Red-brown, very fine to fine SANDY CLAY.	SC	
4,5,8,12		Slightly moist; no petroleum odor		
6-8'	0	Red-brown, very fine to fine SANDY CLAY.	SC	
9,13,14,19		Slightly moist; no petroleum odor.		
8-10'	0	Red-brown, very fine to fine SANDY CLAY.		
7,13,13,19		9-10 Moist; no petroleum odor.		
10-12'	0	Red-brown, very fine to fine SANDY CLAY.		
19,24		Moist; no petroleum odor.		
,26,29		most, no pousioum sustr		
12-14'	0	Red-brown, very fine to fine SANDY CLAY.		
7,11,15,19	U	Moist; no petroleum odor.		
7,11,15,19 14-16'	0	Brown, CLAY; some fine Sand; trace angular fine gravel;		
	U			33333
5,6,9,13	0	Slightly moist; no petroleum odor.		33333
16-18'	0	Brown, CLAY; some fine Sand; trace angular fine gravel;		
12,12,		Slightly moist; no petroleum odor.		33333
13,17				
18-20'	0	Brown, CLAY; trace (-) fine angular Gravel; trace (-) very fine		
1,3,4,4		to fine Sand.		
		Moist to wet; no petroleum odor.		
20-22'	0	Brown, SILTY CLAY; trace (-) fine angular Gravel; trace (-)		
4,5,5,6		very fine to fine Sand.		
		Moist to wet; no petroleum odor.		
22-24'	0	Brown, SILTY CLAY; trace (-) fine angular Gravel; trace (-)		
5,7,7,6		very fine to fine Sand.		
		Moist to wet; no petroleum odor.		
24-26'	0	Brown, SILTY CLAY; trace (-) fine angular Gravel; trace (-)		
3,4,4,5		very fine to fine Sand.		
-, -, -, -		Moist to wet; no petroleum odor.		
26-28'	0	Brown, SILTY CLAY; trace (-) fine angular Gravel; trace (-)		
	Ĭ	very fine to fine Sand.		
		Moist to wet; no petroleum odor.		
28-30'		Brown, SILTY CLAY; trace (-) fine angular Gravel; trace (-)		
20-30				
		very fine to fine Sand.		
		Wet to saturated; no petroleum odor.		
1				
		Bottom of boring Sample Interval		
		• •		

30' 8'-10'



Riverview Industrial Center

5335 River Road

Tonawanda NY

#### SUBSURFACE LOG MONITORING WELL LOG

Date 5/8/2009

Client/Job# NYSDEC

LOCATION# MW-006

Grout/Cement 0-6'

Bentonite 6-7'

Sand 30-7' Well Screen interval 8-30'

			Weii	Screen interval	8-30
Depth (feet) -				Soil	Well
BLOW				Classification	Completion
COUNTS	PID (ppm)	DESCRIPTION		Symbols	Data
0-2'	0	Dark brown-red, fine to medium SAND and	CLAY; trace organics		
4,4,6,7		Dry; no petroleum odor.		SW-SC	
2,4,4,6					
2-4'	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	
4,6,7,12		very fine to sub-rounded Gravel.			
		Dry; no petroleum odor.			
4-6'	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	
7,5,7,11		very fine to sub-rounded Gravel.			
		Dry; no petroleum odor.			
6-8'	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	
7,10,15,18		very fine to sub-rounded Gravel.			
		Dry; no petroleum odor.			
8-10'	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	
6,9,12,16		very fine to sub-rounded Gravel.			
		Dry; no petroleum odor.			
10-12'	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	
21,25		very fine to sub-rounded Gravel.			100000
		Dry; no petroleum odor.			30000
12-14'		Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	
7,12,16,19		very fine to sub-rounded Gravel.	, ,		
, , ,		Dry; no petroleum odor.			
14-16'	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	100000
5,6,9,13		very fine to sub-rounded Gravel.	(,		200000 200000 200000
-,-,-,-		Dry; no petroleum odor.			
16-18'	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	
12,12,		very fine to sub-rounded Gravel.		<b>V</b> -	
13,17		Dry; no petroleum odor.			000000
18-20	0	Brown, CLAY; some very fine to fine Sand;	occasional to trace(-)	CL	1000000 1000000 1000000
4,6,12,16	U	very fine to sub-rounded Gravel.	occasional to trace(-)	OL	
4,0,12,10		Dry; no petroleum odor.			1000000 1000000 1000000
20-22'	0	Brown CLAY and SILT; trace (-) fine Sand.		ОН	
20-22 12,14,17,21		Moist; no petroleum odor.		011	
12,14,17,21 22-24'	0	Brown CLAY and SILT; trace (-) fine Sand.		ОН	
	U			ОП	
5,7,7,6		Moist; no petroleum odor.		011	30000
24-26'	0	Brown CLAY and SILT; trace (-) fine Sand.		ОН	33333
10,9,11,8		Moist; no petroleum odor.		011	100000
26-28'	0	Brown CLAY and SILT; trace (-) fine Sand.		ОН	00000
4,9,16,15		Moist; no petroleum odor.		<b>.</b>	
28-30'	0	Brown CLAY and SILT; trace (-) fine Sand.		ОН	
10,8,11,6		Moist; no petroleum odor.			
			ample Interval		
		30' 2'	'-4'		



Riverview Industrial Center

5335 River Road
Tonawanda NY

SUBSURFACE LOG MONITORING WELL LOG

Date 5/11/2009

Client/Job# NYSDEC

LOCATION# MW-007

Grout/Cement

0-6'

Bentonite 6-7'

Sand 30-7' Well Screen interval 8-30'

		vven	Screen interval	8-30'
Depth (feet) -			Soil	Well
BLOW ` ´			Classification	Completion
COUNTS	PID (ppm)	DESCRIPTION	Symbols	Data
0-2'	0	Dark brown-red fine to medium SAND and CLAY; trace organics.	SC	
4,4,6,7		Dry; no petroleum odor.		
2-4'	0	Brown, CLAY; some very fine to fine Sand.	CL	
5,4,5,5		Dry; no petroleum odor.		
4-6'	0	Brown to light Brown, CLAY; some very fine to fine Sand.	CL	
3,5,6,7		Dry; no petroleum odor.		
6-8'	0	Light brown, fine to medium SAND; fine to coarse GRAVEL	SP-GP	
11,13,		Dry; no petroleum odor.		
16,12		Water likely at 7-8 feet.		
8-10'	0	Light brown fine to medium SAND; some rounded to subangular	SP	
7,11,32,55		coarse to fine Gravel; cobble at 9 feet. Saturated; no odor.		
10-12'	0	Brown, TILL at 10' hard packed fine to medium GRAVELLY	GP-GM	
8,8,7,8		SILT; fine to coarse trace very fine to fine Sand.		
		Saturated; no odor.		
12-14'		Brown SILT; some very fine to medium Sand.	OL	
3,2,3,4		Saturated; no petroleum odor.		
14-16'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	
2,2,2,3		angular Gravel.		
		Saturated to wet; no petroleum odor.		
16-18'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	
4,5,5,5		angular Gravel.		
		Wet; no petroleum odor.		
18-20'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	
3,4,4,4		angular Gravel.		
-, , ,		Saturated to wet; no petroleum odor.		
20-22'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	
8,17,10,9	-	angular Gravel.		
, , , , , , , ,		Saturated to wet; no petroleum odor.		
22-24'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	20000
9,8,10,9		angular Gravel.	0	
0,0,10,0		Saturated to wet; no petroleum odor.		
24-26'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	
1,1,1,1		angular Gravel.	Civi	
1,1,1,1		Saturated to wet; no petroleum odor.		
26-28'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	
1,1,1,1		angular Gravel.	Givi	
1,1,1,1		Saturated to wet; no petroleum odor.		
28-30'	0	Brown, SILTY fine to medium SAND; some (-) Clay; trace (-) fine	SM	
2,2,1,1	U	angular Gravel.	SIVI	
۷,۷,۱,۱				
		Saturated to wet; no petroleum odor.	<u> </u>	
		Bottom of boring Sample Interval 5'-9'		
		ง - ซ		



Riverview Industrial Center

5335 River Road

Tonawanda NY

#### SUBSURFACE LOG MONITORING WELL LOG

5/13/2009

Client/Job# NYSDEC

Date

LOCATION# MW-008

Grout/Cement 0-6'

Bentonite 6-7'

Sand 30-7

			Well	Screen interval	8-3
Depth (feet) -				Soil	Wel
BLOW				Classification	Comple
COUNTS	PID (ppm)	DESCRIPTION		Symbols	Data
0-2'	0	Dark brown, SANDY SILT; some very fine to fine angular			
1,2,3,4		subrounded Gravel.		SP-SM	
		Dry; no petroleum odor.			
2-4'	0	Brown, hard packed SILTY CLAY; little (+) very fine Sand.		ОН	
5,8,14,15		Dry; no petroleum odor.			
4-6'	0	Brown, SILTY fine to medium SAND.		SW-SC	
2,8,13,10		Dry; no petroleum odor.			
6-8'	0	Light brown, fine to coarse GRAVEL; some	e fine to medium Sand;	GP	
17,		subrounded Gravel.			
24,28		Dry; no petroleum odor.			
8-10'	0	Brown-red, CLAY; trace (+) very fine Sand		CH	000000
10,17,24,30		Dry, hard; no petroleum odor.			200000
10-12'	0	Red-brown CLAYEY fine to medium SAND	); occasional fine	SW-SC	000000
23,26		angular Gravel.			000000
30,34		Dry, hard; no petroleum odor.			000000
12-14'		Red-brown CLAY; little (-) very fine to fine	Sand;	CL	200000
8,10,11,12		occasional angular coarse Gravel.			000000 000000 000000
		Dry to moist; no petroleum odor.			0000000 0000000 0000000
14-16'	0	Brown, CLAY; trace very fine to fine Sand;	trace (-) angular fine	CL	300000
2,5,5,7		Gravel; Moist; no petroleum odor.			0000000
16-18'	0	Brown, CLAY; trace very fine to fine Sand;	trace (-) angular fine	CL	000000 000000 000000
4,5,7,5		Gravel; Moist; no petroleum odor.	-		0000000
18-20	0	Brown, CLAY; trace very fine to fine Sand;	trace (-) angular fine	CL	3000000
4,4,5,8		Gravel; Moist; no petroleum odor.	., .		000000
20-22'	0	Dark brown, SILTY CLAY; trace (+) fine Sa	and; occasional fine	ОН	0000000
3,4,7,8		Gravel; Moist; no petroleum odor.	ŕ		000000
22-24'	0	Dark brown, SILTY CLAY; trace (+) fine Sa	and: occasional fine	ОН	5000000 5000000 5000000
3,4,7,8	_	Gravel; Moist; no petroleum odor.	,		000000 000000 000000
24-26'	0	Brown, SILTY CLAY; some (-) fine Sand; to	race (-) angular fine	ОН	000000 000000 000000
10,8,11,14		Gravel; Moist; no petroleum odor.		]	000000
26-28'	0	Brown, SILTY CLAY; some (-) fine Sand; trace (-) angular fine		ОН	000000 000000 000000
10,11,15,16		Gravel; Moist; no petroleum odor.		J	000000 000000 000000
28-30'	0	Light brown, SILTY CLAY; trace (-) angular fine Gravel.		ОН	2000000 2000000 2000000
4,6,8,10		Moist; no petroleum odor.			3000000 3000000 30000000
7,0,0,10		inoist, no petroleum odor.			200000
		Bottom of boring	Sample Interval		200000
			14-16'		
		JU	17-10		

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## APPENDIX D

# LABORATORY ANALYTICAL REPORTS

Already forwarded under separate cover.